


HOPPUS'S MEASURER

FOR TIMBER, STONE, IRON, &c.



**HOPPUS'S
PRACTICAL
MEASURER**

NICHOLSON'S EDITION



102

HOPPUS'S MEASURER

Example I Page 5.

Fig 1

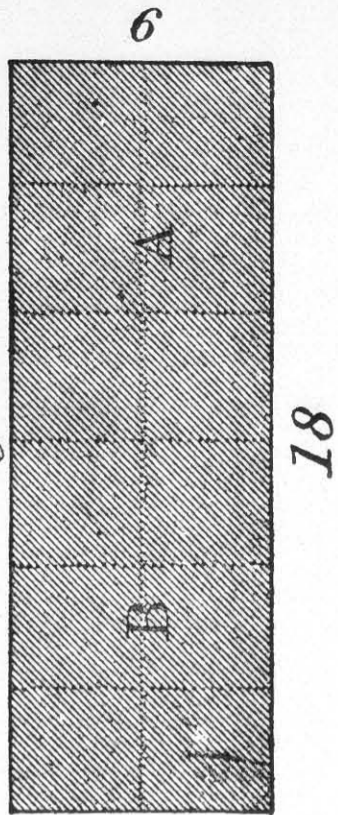
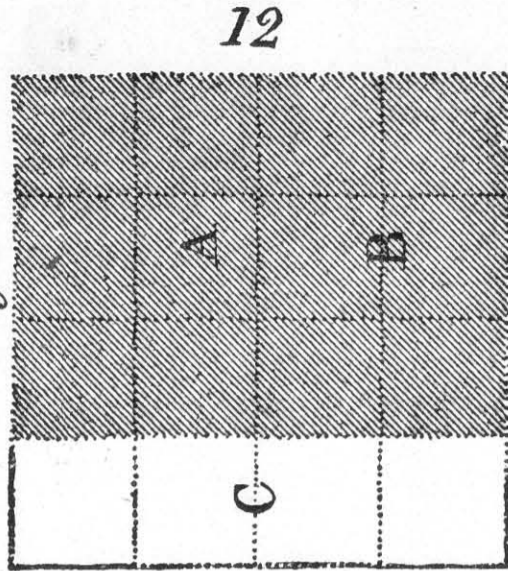


Fig 2



Example II Page 5.

Fig 1



Fig 2

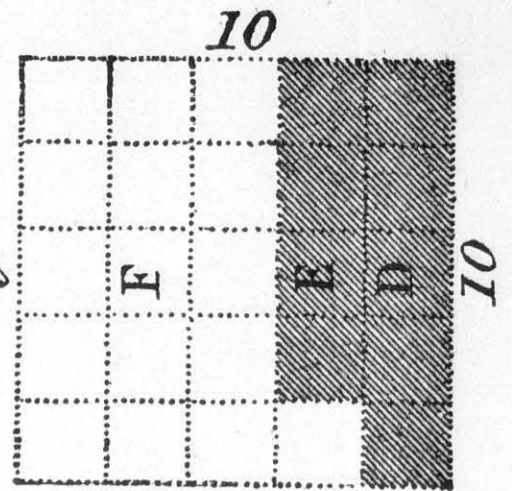


Fig 3 Page 37

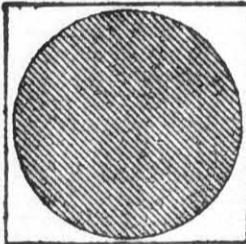
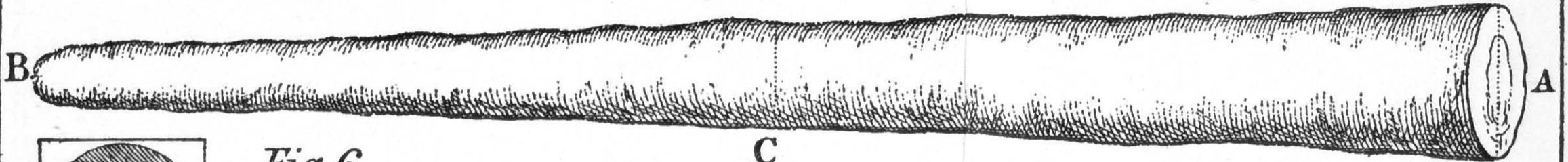


Fig 6
Page 47
& 50

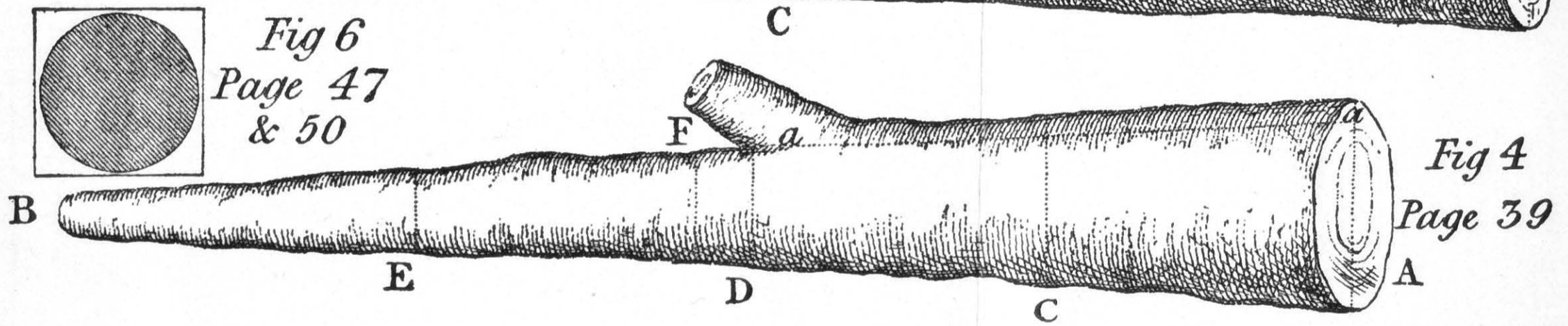


Fig 4
Page 39
A

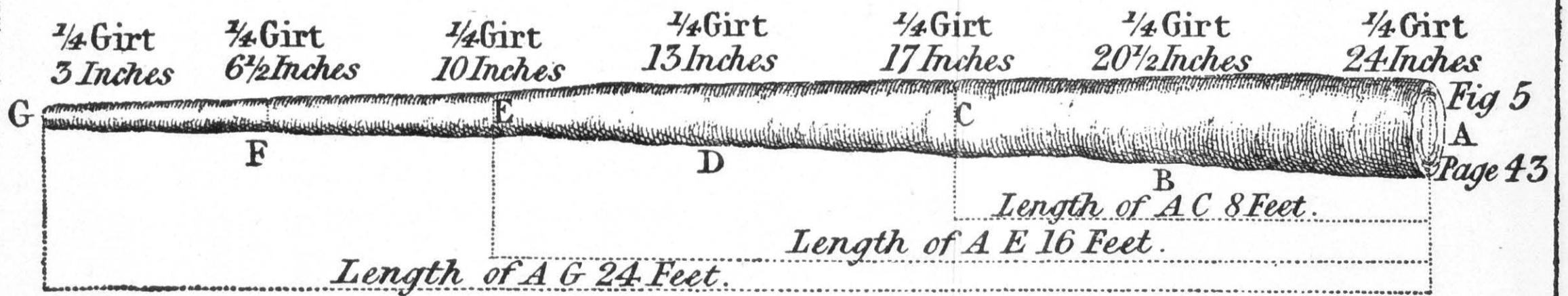


Fig 5 Measured by 3 Dimensions <i>Solid Feet</i>											
The Piece	<table border="0"> <tr> <td style="font-size: 2em;">{</td> <td style="padding: 0 5px;">AC</td> <td rowspan="3" style="font-size: 2em;">}</td> <td rowspan="3" style="padding: 0 5px;">measured Singly makes</td> <td rowspan="3" style="font-size: 2em;">{</td> <td style="padding: 0 5px;">23$\frac{1}{4}$</td> </tr> <tr> <td style="padding: 0 5px;">CE</td> <td style="padding: 0 5px;">10$\frac{1}{4}$</td> </tr> <tr> <td style="padding: 0 5px;">EG</td> <td style="padding: 0 5px;">2$\frac{1}{2}$</td> </tr> </table>	{	AC	}	measured Singly makes	{	23 $\frac{1}{4}$	CE	10 $\frac{1}{4}$	EG	2 $\frac{1}{2}$
{	AC	}	measured Singly makes				{	23 $\frac{1}{4}$			
CE	10 $\frac{1}{4}$										
EG	2 $\frac{1}{2}$										
The Total	<table border="0"> <tr> <td style="font-size: 2em;">{</td> <td style="padding: 0 5px;">as 3 Pieces</td> <td style="padding: 0 5px;">35$\frac{3}{4}$</td> </tr> <tr> <td style="padding: 0 5px;">as 1 Piece</td> <td style="padding: 0 5px;">30$\frac{1}{4}$</td> </tr> <tr> <td style="padding: 0 5px;">Gained by 3 Dimensions.</td> <td style="padding: 0 5px;">5$\frac{1}{2}$</td> </tr> </table>	{	as 3 Pieces	35 $\frac{3}{4}$	as 1 Piece	30 $\frac{1}{4}$	Gained by 3 Dimensions.	5 $\frac{1}{2}$			
{	as 3 Pieces	35 $\frac{3}{4}$									
as 1 Piece	30 $\frac{1}{4}$										
Gained by 3 Dimensions.	5 $\frac{1}{2}$										

The Part C.G by 2 Dimensions <i>Solid Feet</i>									
The Piece	<table border="0"> <tr> <td style="font-size: 2em;">{</td> <td style="padding: 0 5px;">CE</td> <td rowspan="3" style="font-size: 2em;">}</td> <td rowspan="3" style="padding: 0 5px;">measured Singly makes</td> <td rowspan="3" style="font-size: 2em;">{</td> <td style="padding: 0 5px;">10$\frac{1}{4}$</td> </tr> <tr> <td style="padding: 0 5px;">EG</td> <td style="padding: 0 5px;">2$\frac{1}{4}$</td> </tr> </table>	{	CE	}	measured Singly makes	{	10 $\frac{1}{4}$	EG	2 $\frac{1}{4}$
{	CE	}	measured Singly makes				{	10 $\frac{1}{4}$	
EG	2 $\frac{1}{4}$								
The Total	<table border="0"> <tr> <td style="font-size: 2em;">{</td> <td style="padding: 0 5px;">as 2 Pieces</td> <td style="padding: 0 5px;">12$\frac{1}{2}$</td> </tr> <tr> <td style="padding: 0 5px;">as 1 Piece</td> <td style="padding: 0 5px;">11</td> </tr> <tr> <td style="padding: 0 5px;">Gained by 2 Dimensions.</td> <td style="padding: 0 5px;">1$\frac{1}{2}$</td> </tr> </table>			{	as 2 Pieces	12 $\frac{1}{2}$		as 1 Piece	11
{	as 2 Pieces	12 $\frac{1}{2}$							
as 1 Piece	11								
Gained by 2 Dimensions.	1 $\frac{1}{2}$								

HOPPUS'S

MEASURER

FOR TIMBER, STONE, &c.

1. Unequal-sided Timber, Stone, &c.,
pp. 12 to 32. *Explanation p. 5*
2. Cube (Solid) Measure for Timber,
Stone, &c., 1 to 45 ft. \times 2 to 54 ins.,
pp. 52 to 156. *Explanation p. 33*
3. Value per Foot Cube.
1/6 to 5/6. 2 to 11½ ins. square,
pp. 162-179. *Explanation p. 157*
4. Superficial or Square (Flat) Measure
1 in. to 24 ft. \times 1 in. to 24 ins.,
pp. 190-236. *Explanation p. 180*
5. Table of Weights of Iron. Round,
Flat, and Square. pp. 237-239.

With Full Instructions

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MEASUREMENTS

The 'Express' Superficial and Cube Reckoner. A highly detailed manual for Architects, Builders, Timber and Glass Merchants, Farmers, &c. 2/6 net
Areas from 12" x 12" to 156" x 156", by ins.
" " " " x 1 to 29-100 ft.
" (feet meas'ts) answer in sq. yards.
Cube meas'ts (rectangular) in c. ft. & yds.,
Girthing Tables. [by a 2nd reference.
Contents of Stacks and Cones; Lineal feet per Standard, Cube Foot, and Acre; Wall-paper Tables; Contents of Stacks and Cones; Weights of Materials; Wire Gauges, &c.

The 'Express' Cubing Tables, for rectangular measure. 3/- net.

Giving, at a glance, the cube contents from 12" x 12" x 6" to 72" x 40-48" x 36", by inches; and extensions to 144" x 36" x 24", by 2 inches. Also shorter cube Tables for 1 to 100 feet long, in both cube feet and in cube yards, up to x 12 feet x 7 feet.

P R E F A C E .

EXAMPLE I.

(See Engraving facing Title Page.)

LET fig. 1. (marked A B) represent the end of a piece of timber or stone, so *unequal-sided* as 18 inches broad and but 6 inches thick.

Now to find the true square of this piece, Keay directs you to add together the two sides, viz. 18 and 6, which *makes* 24 inches; and if you take half of that number, viz. 12, says he, you have the true square: whereas by these new tables, and in fact, it is not quite 10½ inches. [Keay's Tables, before 1730].

DEMONSTRATION.

Let fig. 2 represent a square of 12 inches each side, then divide fig. 1. (by the strongest dotted line) into two equal parts, and take that part marked B, and place it in fig. 2, then take the other part marked A, and place it in fig. 2. likewise; and when this is done, there will plainly appear to be wanting all the dotted part C, which is no less than one-fourth of the whole square; and consequently the buyer, if he relies upon the advice of the judicious Mr. Keay, certainly pays for one-fourth more timber than he in reality has, or ought to pay for.

But this mistake of 5s. in the pound, you shall see, is only one of Mr. Keay's peccadillos.

EXAMPLE II.

(See Engraving facing Title Page.)

Let. fig. 1. (marked D E) represent the end of a piece of timber, so unequal-sided as 18 inches broad and but two inches thick.

Now if you rely upon Keay, and add together the two sides 18 and 2, it makes 20 inches. Half of which, says he, is the true side of the square, viz.

10 inches: whereas by my tables, and in truth, the true side of the square is but 6 inches.

DEMONSTRATION.

Let fig. 2. represent a square of 10 inches each side, then divide fig. 1. (by the strongest dotted line) and take that part marked D, and place it in fig. 2; then take the other part marked E, and place it in fig. 2. likewise; and when this is done, there will plainly appear to be wanting all the dotted part F, which is near two-thirds of the whole square, and consequently the buyer, when in fact he ought to pay but 7s. 2½d. must, if he his guided by Keay, pay 20s., which is 12s. 9½d. in every 20s. in his own wrong.*

*Should be paid.....	s.	d.
	7	2½
Keay advises you to pay too much	12	9½
	20 0	

But perhaps the above manner of demonstration, which is geometrical, may not appear clear and satisfactory to all, therefore I shall demonstrate the fallacies of Keay's rule arithmetically.

DEMONSTRATION.

Suppose you have a piece of timber each side whereof is 12 inches (or a foot square) these multiplied into each other (viz. 12 by 12) make 144 (the inches in a superficial foot): but should the sides vary, or become unequal, ever so little from this size, there will be a fallacy in the above mentioned rule.

For was one side 13 inches, and the other 11, these added together, the half will still be 12 for the true square.

But if multiplied together, (as they always ought to be, and are in the calculation of these new tables), it will be but 143. So that here is one superficial inch too much in every foot in length, be there ever so many.

AGAIN.

If one side be 16 inches, and the other 8 inches, these added together, the half is also 12 for the true square; but multiplied, it is only 128: so that in this case, whoever has any thing to do with Keay's rule and tables, will certainly pay for 16 superficial inches too much in each foot in length, be there ever so many.

Let us now re-consider Examples I. and II. arithmetically.

In example I. 18 multiplied by 6 is but 108, and consequently Keay's rule, which makes it 144, is exceedingly false, that being

From these demonstrations it is plain that no man ought to assume the character of an author, and publicly to take upon himself to determine in the business of MEUM and TEUM, before he is well assured of his own abilities for such an undertaking, and is resolved to make some conscience of what he publishes. If a due regard had always been paid to this consideration, we should never have met with any formal pretender, presuming to teach others those things which it is evident he did not understand himself.

I should scorn to make these observations at all for the sake of disparaging the performances of others, or to build myself a reputation on their ruin; but I think myself obliged to acquaint the public with the plain truth of things, without favour or affection; and I am satisfied, if this conduct were oftener practised, both the time and expense of gaining useful knowledge would be much shortened; and whoever endeavours to promote that, let the returns he meets with be what they may, he certainly lays the public under the greatest obligations.

By this time, it is to be presumed, no man can doubt the public to be in want of a new set of tables for measuring all sorts of timber, stones, boards, &c. and these I here present them with, by giving the contents in feet, inches, and the twelfth parts of an inch, which is the most natural method, and best adapted to ordinary capacities (for whose sake these tables were principally intended). I say the method of these tables, (since it comes near enough

36 superficial inches too much in every foot in length, be there ever so many; or one-fourth, as was before demonstrated.

In example II. where the different sides are 18 and 2, these added make 20, whose half is 10, which being multiplied by itself, (viz. 10 by 10) is 100; whereas the sides multiplied together make but 36, and consequently, if you have any thing to do with Keay's rule and tables, you certainly pay for 64 superficial inches in every 100 inches, more than you have, which is above 12s. 9d. in every 20s. more than ought to be paid, as was before geometrically demonstrated.

the truth, and can be at sight conceived,) is much preferable to the 10,000 parts of a foot, made use of by Darling; or the more unintelligible 432 parts of a quarter of a foot, made use of by Keay.

The table of Superficial or flat measure is new, and is extended to 24 inches the breadth, (which is double the breadth of Keay's) and is calculated to the exactness of a quarter of an inch; which renders it very useful to glaziers and others who measure flat work to the greatest exactness, which Keay's table of flat measure does not, by reason he has omitted the quarters.

Sensible of the consequences the mistakes in printing must occasion in works of this nature, I have been careful in examining each number throughout the book, so that I have reason to believe they are all exact, and, therefore, both the buyer and seller may depend upon meeting with mutual justice from these tables: which, it is plain from what has been said above they are not to expect from Keay's where the press-errors are gross and numerous.

I believe nobody can doubt these tables being as extensive as was consistent with my design of making them a cheap Pocket Companion: and if the public reap the advantage from them which I intend they should, it will be ample satisfaction to me, and I think they can have no reason to complain. E. HOPPUS.

N. B. The new Tables showing the value of Timber, Stone, &c. (cut to any size or scantling) per foot cube, added to this work, will be found very useful to all who are concerned in the building trade.

A NEW TABLE

FOR FINDING, AT SIGHT

THE SQUARE

OF

UNEQUAL-SIDED TIMBER,
STONE, &c.,

READY CAST UP:

Whereby the true Square of any Piece of Timber, Stone, &c. being broader one way than the other, may be found, from 2 to 54 inches the broadest side; and therefore, by addition only, may serve to any greater breadth, if there should ever be occasion.

THE

EXPLANATION AND USE.

BEFORE I proceed to explain and show the use of the table of Solid Measure, it is necessary that I should explain and show the use of the table of the Square of Unequal-sided Timber, whereby any piece of Timber, that is found being broader one way than the other, we may find the side of the square equal thereto.

I. At the beginning of this table, betwixt two parallel lines, stand two inches square, which two inches is the thickness, or lesser side, of the end of a piece of timber that you would find the square of; and under the said parallel lines are two columns of figures: in that column to the left-hand, divided from the other by a black line, is the breadth or larger side of the piece to be measured.

II. The second column shows the square of the piece in inches and quarters of an inch, answering to every inch and half inch of breadth in the left-hand column.

TO FIND THE SQUARE OF UNEQUAL-SIDED TIMBER.

EXAMPLE I.

Suppose you have a piece of Timber or Stone, the end of which is 3 inches thick, and 7 inches broad, and want to know the square side of it:—

Look in the table for 3 inches, the thickness (or lesser side), betwixt the parallel lines, keeping your eye down the left-hand column till you come to 7, and opposite that, in the second column, you will find $4\frac{1}{2}$ inches, which is the square side of a piece of timber or stone, equal to 3 inches thick and 7 inches broad.

EXAMPLE II.

If you have a piece of timber or stone, the end of which is $4\frac{1}{2}$ inches thick, and $11\frac{1}{2}$ inches broad, and would know what is the square of it:—

Look for $4\frac{1}{2}$ the thickness (or lesser side) betwixt the parallel lines, keeping your eye down the left-hand column for $11\frac{1}{2}$ (the breadth), opposite which you will find $7\frac{1}{4}$ inches; that being the square side of a piece of timber or stone, equal to $4\frac{1}{2}$ inches thick and $11\frac{1}{2}$ broad.

EXAMPLE III.

Let there be a piece of timber whose thickness at the end is $29\frac{1}{2}$ inches, and the breadth 34 inches, the square side of which will be found to be $31\frac{3}{4}$ inches.

Note.—If any one should object that the quarters of an inch are not considered in this table of Unequal-sided Timber, to such it may appear (from an example or two) that to have taken notice of the quarters in the table would have been unnecessary: because there is no square side to be found nearer than what I have calculated.

EXAMPLE IV.

If you have the end of a piece of timber $5\frac{3}{4}$ inches thick, and $7\frac{1}{4}$ inches broad;—in this case, take the quarter from the larger side and add it to the smaller side, when it will be 7 inches broad by 6 inches thick. Then look in the table for 6, betwixt the parallel lines, and opposite 7, in the left-hand

column, you will find $6\frac{1}{2}$ inches, which is the true square.

EXAMPLE V.

If you have the end of a piece of Timber $15\frac{3}{4}$ inches thick, and $19\frac{1}{4}$ inches broad, call it 16 by 19, whose square side in the table is $17\frac{1}{2}$ inches.

Note.—If a quarter of an inch happens to one side only, you may reject it without any material loss. For the above method will be sufficiently near in all cases, provided you remember to take the quarter from the larger side, and add it to the lesser side. But lest any one should entertain a prejudice against this table, by reason the quarters are omitted, let him take the following:—

EXAMPLE VI.

Let there be a piece of timber so unequal-sided as $17\frac{1}{4}$ inches broad, and but $3\frac{1}{4}$ inches thick, by the above rule call it $3\frac{1}{2}$ by 17, the square side of which, by the table, is $7\frac{3}{4}$ inches; take it likewise the contrary way, and call it by $17\frac{1}{2}$, and the square side, by the table, is $7\frac{1}{4}$ inches; and therefore, in this case, the truth will be the mean betwixt $7\frac{3}{4}$ and $7\frac{1}{4}$, which is $7\frac{1}{2}$, and that is the exact square side of a piece of timber $17\frac{1}{4}$ inches by $3\frac{1}{4}$. For where the sides are so very different one to the other, you should look for it both ways, and take the mean betwixt the extremes.

Note.—Though it is seldom or never likely to happen in practice, yet I will suppose you have occasion to find the square side of a piece of timber or stone, too large for the extent of this table.

EXAMPLE VII.

You have a piece of timber 60 inches (or 5 feet) thick, and 96 inches (or 8 feet) broad, and want to know the square side of it:—Take half the thickness (of 60) which is 30, and half the breadth (of 96) which is 48. Look in the table for 30, betwixt the parallel lines, keeping your eye down the left-hand column, till you come to 48, and opposite that is 38 inches, which is one half of the square side of the piece, and that doubled makes 76, and is the square side of the piece required.

See Example VI. in Solid Measure, page 37.

2 IN. BY		12	5½	7	5
2½ is 2¼	12½	5½	7½	5	5
3	13	5¾	8	5¼	5¼
3½	13½	5¾	8½	5½	5½
4	14	6	9	5½	5¾
4½	14½	6	9½	6	6
5	15	6¼	10	6	6
5½	15½	6¼	10½	6¼	6¼
6	16	6¼	11	6¼	6¼
6½	16½	6½	11½	6½	6½
7	17	6½	12	6½	6½
7½	17½	6½	12½	6½	6½
8	18	6¾	13	7	7
8½	4	3 IN. BY			7
9	4¼	3½ is 3¼	14	7	7
9½	4¼	3½	14½	7	7
10	4½	3¾	15	7¼	7¼
10½	4½	3¾	15½	7¼	7¼
11	4¾	4	16	7½	7½
11½	4¾	4	16½	7½	7½
12	5	4¼	17	7¾	7¾
12½	5	4¼	17½	7¾	7¾
13	5¼	4½	18	8	8
13½	5¼	4½	4 IN. BY		
14	5¼	4¾	4½ is 4¼	4½	4½
14½	5½	5	5	4½	4¾
15	5½	5	5½	4¾	4¾
15½	5½	5	6	5	5
16	5¾	5½	6½	5	5
16½	5¾	5½	7	5¼	5¼
17	5¾	5¾	7½	5½	5½
17½	6	6	8	5½	5¾
18	6	6	8½	5¾	5¾
2½ IN. BY		12½	6¼	9	6
3 is 2¾	13	6¼	9½	6	6
3½	13½	6¼	10	6¼	6¼
4	14	6½	10½	6½	6½
4½	14½	6½	11	6½	6½
5	15	6¾	11½	6¾	6¾
5½	15½	7	12	7	7
6	16	7	12½	7	7
6½	16½	7¼	13	7¼	7¼
7	17	7¼	13½	7¼	7¼
7½	17½	7¼	14	7½	7½
8	18	7¼	14½	7½	7½
8½	4	3½ IN. BY			7½
9	4¼	4 is 3¾	15	7½	7¾
9½	4¼	4½	15½	7¾	7¾
10	4½	4½	16	8	8
10½	4½	4½	16½	8¼	8¼
11	5	5	17	8¼	8¼
11½	5	5½	17½	8¼	8¼
		6	18	8½	8½
		6½			

4½ IN. BY		17	9¼	17	10
5 is 4¾	17½	9¼	17½	10¼	10¼
5½	18	9½	18	10½	10½
6	5½ IN. BY		6½ IN. BY		
6½	6 is 5¾	6	7 is 6¾	7	6¾
7	6½	6	7½	7	7
7½	7	6¼	8	7¼	7¼
8	7½	6½	8½	7½	7½
8½	8	6½	9	7¾	7¾
9	8½	6¾	9½	8	8
9½	9	6¾	10	8¼	8¼
10	9½	7	10½	8½	8½
10½	10	7¼	11	8½	8¾
11	10½	7½	11½	8¾	8¾
11½	11	7¾	12	9	9
12	11½	8	12½	9¼	9¼
12½	12	8¼	13	9½	9½
13	12½	8½	13½	9½	9¾
13½	13	8½	14	9¾	9¾
14	13½	8¾	14½	10	10
14½	14	8¾	15	10¼	10¼
15	14½	9	15½	10½	10½
15½	15	9	16	10½	10¾
16	15½	9¼	16½	10¾	10¾
16½	16	9½	17	10¾	10¾
17	16½	9½	17½	10¾	10¾
17½	17	9¾	18	10¾	10¾
18	17½	9¾	7 IN. BY		
5 IN. BY		18	10	7½ is 7¼	7¼
5½ is 5¼	6 IN. BY	6 IN. BY			7½
6	6½ is 6¼	6½	7	8	7½
6½	7	6½	7½	8½	7¾
7	7½	7	8	9	8
7½	8	7¼	8½	9½	8¼
8	8½	7½	9	10	8¼
8½	9	7¾	9½	10½	8½
9	9½	8	10	11	8½
9½	10	8¼	10½	11½	9
10	10½	8½	11	12	9¼
10½	11	8¾	11½	12½	9¼
11	11½	9	12	13	9½
11½	12	9¼	12½	13½	9¾
12	12½	9½	13	14	10
12½	13	9½	13½	14½	10
13	13½	9¾	14	15	10¼
13½	14	9¾	14½	15½	10½
14	14½	10	15	16	10¾
14½	15	10	15½	16½	10¾
15	15½	10	16	17	11
15½	16	10	16½	17½	11
16	16½	10	17	18	11¼
16½	17	10			

7½ IN. BY		13	10½	10 IN. BY		
8	is 7¾	13½	10¾	10½	is 10¼	
8½	8	14	11	11	10½	
9	8¼	14½	11	11½	10¾	
9½	8½	15	11¼	12	11	
10	8¾	15½	11½	12½	11¼	
10½	8¾	16	11¾	13	11½	
11	9	16½	11¾	13½	11½	
11½	9¼	17	12	14	11¾	
12	9½	17½	12¼	14½	12	
12½	9¾	18	12¾	15	12¼	
13	9¾	9 IN. BY				15½
13½	10					16
14	10¼	9½	is 9¼	16½	12¾	
14½	10½	10	9½	17	13	
15	10¾	10½	9¾	17½	13¼	
15½	10¾	11	10	18	13½	
16	11	11½	10¼	18½	13½	
16½	11	12	10½	19	13¾	
17	11¼	12½	10½	19½	14	
17½	11½	13	10¾	20	14¼	
18	11½	13½	11	10½ IN. BY		
8 IN. BY		14	11¼	11	is 10¾	
8½	is 8¼	14½	11½	11½	11	
9	8½	15	11¾	12	11¼	
9½	8¾	15½	11¾	12½	11½	
10	9	16	12	13	11¾	
10½	9¼	16½	12¼	13½	12	
11	9½	17	12½	14	12	
11½	9¾	17½	12¾	14½	12¼	
12	9¾	18	12¾	15	12½	
12½	10	9½ IN. BY				15½
13	10¼	10	is 9¾	16	13	
13½	10½	10½	10	16½	13¼	
14	10¾	11	10¼	17	13½	
14½	10¾	11½	10½	17½	13¾	
15	11	12	10¾	18	14	
15½	11¼	12½	11	19	14	
16	11¼	13	11	19½	14¼	
16½	11½	13½	11¼	20	14½	
17	11¾	14	11½	20½	14¾	
17½	11¾	14½	11¾	21	14¾	
18	12	15	12	11 IN. BY		
8½ IN. BY		15½	12¼	11½	is 11¼	
9	is 8¾	16	12½	12	11½	
9½	9	16½	12¾	12½	11¾	
10	9¼	17	12¾	13	12	
10½	9½	17½	13	13½	12¼	
11	9¾	18	13	14	12½	
11½	10	18½	13¼	14½	12¾	
12	10	19	13½	15	12¾	
12½	10¼	19	13½			

15	12¾	18	14¾	19	15½	
15½	13	18½	15	19½	15¾	
16	13¼	19	15	20	16	
16½	13½	19½	15¼	20½	16¼	
17	13¾	20	15½	21	16½	
17½	13¾	20½	15¾	21½	16¾	
18	14	21	15¾	22	17	
18½	14¼	21½	16	22½	17	
19	14½	22	16¼	23	17¼	
19½	14¾	22½	16½	23½	17½	
20	14¾	23	16¾	24	17¾	
20½	15	23½	16¾	24½	17¾	
21	15¼	24	17	25	18	
21½	15¼	12½ IN. BY				25½
22	15½	13	is 12¾	26	18½	
11½ IN. BY		13½	13	13½ IN. BY		
12	is 11¾	14	13¼	14	is 13¾	
12½	12	14½	13½	14½	14	
13	12	15	13¾	15	14¼	
13½	12¼	15½	14	15½	14½	
14	12½	16	14¼	16	14¾	
14½	12¾	16½	14¼	16½	15	
15	13	17	14½	17	15¼	
15½	13¼	17½	14¾	17½	15¼	
16	13½	18	15	18	15½	
16½	13¾	18½	15	18½	15¾	
17	14	19	15¼	19	16	
17½	14¼	19½	15½	19½	16¼	
18	14½	20	15¾	20	16½	
18½	14½	20½	16	20½	16¾	
19	14¾	21	16¼	21	16¾	
19½	15	21½	16½	21½	17	
20	15¼	22	16½	22	17¼	
20½	15¼	22½	16¾	22½	17½	
21	15½	23	17	23	17½	
21½	15¾	23½	17¼	23½	17¾	
22	16	24	17¼	24	18	
22½	16	24½	17½	24½	18¼	
23	16¼	25	17¾	25	18¼	
12 IN. BY		13 IN. BY				
12½	is 12¼	13½	is 13¼	25½	18½	
13	12½	14	13½	26	18¾	
13½	12¾	14½	13¾	26½	19	
14	13	15	14	27	19	
14½	13¼	14 IN. BY				
15	13½	14½	is 14¼			
15½	13¾	15	14½	15	14½	
16	13¾	16	14¾	15½	14¾	
16½	14	16½	14¾	16	15	
17	14¼	17	15	16½	15¼	
17½	14½	17½	15¼	17	15½	
		18	15½	17½	15¾	
		18½	15¾			

18	16	15 IN. BY		26	20
18½	16¼	15½ is	15¼	26½	20¼
19	16½	16	15½	27	20½
19½	16¾	16½	15¾	27½	20¾
20	16¾	17	16	28	20¾
20½	17	17½	16¼	28½	21
21	17¼	18	16½	29	21¼
21½	17½	18½	16¾	29½	21½
22	17¾	19	17	30	21¾
22½	17¾	19½	17	30½	21¾
23	18	20	17¼	31	22
23½	18¼	20½	17½	16 IN. BY	
24	18¼	21	17¾	16½ is	16¼
24½	18½	21½	18	17	16½
25	18¾	22	18¼	17½	16¾
25½	19	22½	18¼	18	17
26	19	23	18½	18½	17¼
26½	19¼	23½	18¾	19	17½
27	19½	24	19	19½	17¾
27½	19½	24½	19¼	20	18
28	19¾	25	19¼	20½	18
14½ IN. BY		25½	19½	21	18¼
15 is	14¾	26	19¾	21½	18½
15½	15	26½	20	22	18¾
16	15¼	27	20¼	22½	19
16½	15½	27½	20¼	23	19¼
17	15¾	28	20½	23½	19½
17½	16	28½	20¾	24	19½
18	16¼	29	20¾	24½	19¾
18½	16½	29½	21	25	20
19	16½	30	21¼	25½	20¼
19½	16¾	15½ IN. BY		26	20½
20	17	16 is	15¾	26½	20½
20½	17¼	16½	16	27	20¾
21	17½	17	16¼	27½	21
21½	17¾	17½	16½	28	21¼
22	17¾	18	16¾	28½	21¼
22½	18	18½	17	29	21½
23	18¼	19	17¼	29½	21¾
23½	18½	19½	17½	30	22
24	18¾	20	17¾	30½	22
24½	18¾	20½	17¾	31	22¼
25	19	21	18	31½	22½
25½	19¼	21½	18¼	32	22¾
26	19½	22	18½	16½ IN. BY	
26½	19½	22½	18¾	17 is	16¾
27	19¾	23	18¾	17½	17
27½	20	23½	19	18	17¼
28	20¼	24	19¼	18½	17½
28½	20¼	24½	19½	19	17¾
29	20½	25	19¾	19½	18

20	18¼	29	22¼	20	19
20½	18½	29½	22½	20½	19¼
21	18½	30	22½	21	19½
21½	18¾	30½	22¾	21½	19¾
22	19	31	23	22	20
22½	19¼	31½	23¼	22½	20¼
23	19½	32	23¼	23	20¼
23½	19¾	32½	23½	23½	20½
24	20	33	23¾	24	20¾
24½	20	33½	23¾	24½	21
25	20¼	34	24	25	21¼
25½	20½	17½ IN. BY		25½	21½
26	20¾	18 is	17¾	26	21½
26½	20¾	18½	18	26½	21¾
27	21	19	18¼	27	22
27½	21¼	19½	18½	27½	22¼
28	21½	20	18¾	28	22½
28½	21¾	20½	19	28½	22¾
29	21¾	21	19¼	29	22¾
29½	22	21½	19½	29½	23
30	22¼	22	19½	30	23¼
30½	22½	22½	19¾	30½	23½
31	22½	23	20	31	23½
31½	22¾	23½	20¼	31½	23¾
32	23	24	20½	32	24
32½	23¼	24½	20¾	32½	24¼
33	23¼	25	21	33	24¼
17 IN. BY		25½	21	33½	24½
17½ is	17¼	26	21¼	34	24¾
18	17½	26½	21½	35	25¼
18½	17¾	27	21¾	35½	25½
19	18	27½	22	36	25¾
19½	18¼	28	22¼	18½ IN. BY	
20	18½	28½	22½	19 is	18¾
20½	18¾	29	22½	19½	19
21	19	29½	22¾	20	19¼
21½	19	30	23	20½	19½
22	19¼	30½	23	21	19¾
22½	19½	31	23¼	21½	20
23	19¾	31½	23½	22	20¼
23½	19¾	32	23¾	22½	20½
24	20	32½	23¾	23	20¾
24½	20¼	33	24	23½	20¾
25	20½	33½	24¼	24	21
25½	20¾	34	24½	24½	21¼
26	21	34½	24½	25	21½
26½	21¼	35	24¾	25½	21¾
27	21½	18 IN. BY		26	22
27½	21½	18½ is	18¼	26½	22¼
28	21¾	19	18½	27	22¼
28½	22	19½	18¾	27½	22½

33	29	33	29¼	33	29½
33½	29¼	33½	29½	33½	29¾
34	29½	34	29¾	34	30
34½	29¾	34½	30	34½	30¼
35	29¾	35	30¼	35	30½
35½	30	35½	30½	35½	30¾
36	30¼	36	30½	36	31
36½	30½	36½	30¾	36½	31
37	30¾	37	31	37	31¼
37½	31	37½	31¼	37½	31½
38	31¼	38	31½	38	31¾
38½	31¼	38½	31¾	38½	32
39	31½	39	31¾	39	32¼
39½	31¾	39½	32	39½	32½
40	32	40	32¼	40	32¾
40½	32	40½	32½	40½	32¾
41	32¼	41	32¾	41	33
41½	32½	41½	32¾	41½	33¼
42	32¾	42	33	42	33½
42½	33	42½	33¼	42½	33¾
43	33	43	33½	43	33¾
43½	33¼	43½	33¾	43½	34
44	33½	44	33¾	44	34¼
44½	33¾	44½	34	44½	34½
45	33¾	45	34¼	45	34¾
45½	34	45½	34½	45½	34¾
46	34¼	46	34½	46	35
46½	34½	46½	34¾	46½	35
47	34½	47	35	47	35¼
47½	34¾	47½	35¼	47½	35½
48	35	48	35¼	48	35¾
48½	35¼	48½	35½	48½	35¾
49	35¼	49	35¾	49	36
49½	35½	49½	35¾	49½	36¼
50	35¾	50	36	50	36½
50½	35¾	50½	36¼	50½	36¾
51	36	51	36½	51	36¾
		51½	36½	51½	37
		52	36¾	52	37¼
				52½	37½
				53	37½
26 IN. BY					
26½ is	26¼				
27	26½				
27½	26¾				
28	27				
28½	27¼				
29	27½				
29½	27¾				
30	28				
30½	28¼				
31	28½				
31½	28¾				
32	29				
32½	29¼				
26½ IN. BY					
27 is	26¾				
27½	27¼				
28	27½				
28½	27¾				
29	28				
29½	28¼				
30	28½				
30½	28¾				
31	29				
31½	29¼				
27 IN. BY					
27½ is	27¼				
28	27½				
28½	27¾				
29	28				
29½	28¼				
30	28½				
30½	28¾				
31	29				
31½	29¼				

32	29½	31	29¼	30	29
32½	29½	31½	29½	30½	29¼
33	29¾	32	29¾	31	29½
33½	30	32½	29¾	31½	29¾
34	30¼	33	30	32	30
34½	30½	33½	30¼	32½	30¼
35	30¾	34	30½	33	30½
35½	31	34½	30¾	33½	30¾
36	31¼	35	31	34	30¾
36½	31½	35½	31¼	34½	31
37	31¾	36	31½	35	31¼
37½	31¾	36½	31¾	35½	31½
38	32	37	32	36	31¾
38½	32¼	37½	32	36½	32
39	32½	38	32¼	37	32¼
39½	32¾	38½	32½	37½	32½
40	32¾	39	32¾	38	32½
40½	33	39½	33	38½	32¾
41	33¼	40	33¼	39	33
41½	33½	40½	33¼	39½	33¼
42	33¾	41	33½	40	33½
42½	33¾	41½	33¾	40½	33¾
43	34	42	34	41	34
43½	34¼	42½	34¼	41½	34
44	34½	43	34½	42	34¼
44½	34¾	43½	34½	42½	34½
45	34¾	44	34¾	43	34¾
45½	35	44½	35	43½	35
46	35¼	45	35¼	44	35
46½	35½	45½	35¼	44½	35¼
47	35½	46	35½	45	35½
47½	35¾	46½	35¾	45½	35¾
48	36	47	36	46	36
48½	36¼	47½	36¼	46½	36
49	36½	48	36¼	47	36¼
49½	36½	48½	36½	47½	36½
50	36¾	49	36¾	48	36¾
50½	37	49½	37	48½	36¾
51	37	50	37	49	37
51½	37¼	50½	37¼	49½	37¼
52	37½	51	37½	50	37½
52½	37¾	51½	37¾	50½	37½
53	37¾	52	37¾	51	37¾
		52½	38	51½	38
		53	38¼	52	38¼
				52½	38¼
				53	38¼
				53½	38½
				54	38¾
27½ IN. BY					
28 is	27¾				
28½	28				
29	28¼				
29½	28½				
30	28¾				
30½	29				
28 IN. BY					
28½ is	28¼				
29	28½				
29½	28¾				
30	29				
30½	29¼				
28½ IN. BY					
29 is	28¾				
29½	29				

30	29 1/4	30	29 1/2	31	30 1/4
30 1/2	29 1/2	30 1/2	29 3/4	31 1/2	30 1/2
31	29 3/4	31	30	32	30 3/4
31 1/2	30	31 1/2	30 1/4	32 1/2	31
32	30 1/4	32	30 1/2	33	31 1/4
32 1/2	30 1/2	32 1/2	30 3/4	33 1/2	31 1/2
33	30 3/4	33	31	34	31 3/4
33 1/2	31	33 1/2	31 1/4	34 1/2	32
34	31 1/4	34	31 1/2	35	32
34 1/2	31 1/2	34 1/2	31 3/4	35 1/2	32 1/4
35	31 3/4	35	32	36	32 1/2
35 1/2	32	35 1/2	32 1/4	36 1/2	32 3/4
36	32 1/4	36	32 1/2	37	33
36 1/2	32 1/2	36 1/2	32 3/4	37 1/2	33 1/4
37	32 3/4	37	33	38	33 1/2
37 1/2	33	37 1/2	33 1/4	38 1/2	33 3/4
38	33 1/4	38	33 1/2	39	34
38 1/2	33 1/2	38 1/2	33 3/4	39 1/2	34 1/4
39	33 3/4	39	34	40	34 1/2
39 1/2	34	39 1/2	34 1/4	40 1/2	34 3/4
40	34 1/4	40	34 1/2	41	35
40 1/2	34 1/2	40 1/2	34 3/4	41 1/2	35 1/4
41	34 3/4	41	35	42	35 1/2
41 1/2	35	41 1/2	35 1/4	42 1/2	35 3/4
42	35 1/4	42	35 1/2	43	36
42 1/2	35 1/2	42 1/2	35 3/4	43 1/2	36 1/4
43	35 3/4	43	36	44	36 1/2
43 1/2	36	43 1/2	36 1/4	44 1/2	36 3/4
44	36 1/4	44	36 1/2	45	37
44 1/2	36 1/2	44 1/2	36 3/4	45 1/2	37 1/4
45	36 3/4	45	37	46	37 1/2
45 1/2	37	45 1/2	37 1/4	46 1/2	37 3/4
46	37 1/4	46	37 1/2	47	38
46 1/2	37 1/2	46 1/2	37 3/4	47 1/2	38 1/4
47	37 3/4	47	38	48	38 1/2
47 1/2	38	47 1/2	38 1/4	48 1/2	38 3/4
48	38 1/4	48	38 1/2	49	39
48 1/2	38 1/2	48 1/2	38 3/4	49 1/2	39 1/4
49	38 3/4	49	39	50	39 1/2
49 1/2	39	49 1/2	39 1/4	50 1/2	39 3/4
50	39 1/4	50	39 1/2	51	40
50 1/2	39 1/2	50 1/2	39 3/4	51 1/2	
51	39 3/4	51	40	52	
51 1/2	40	51 1/2		52 1/2	
52	40 1/4	52		53	
52 1/2	40 1/2	52 1/2		53 1/2	
53	40 3/4	53		54	
53 1/2	41	53 1/2			
54	41 1/4	54			

29 IN. BY

29 1/2 is 29 1/4

29 1/2 IN. BY

30 is 29 3/4
30 1/2 | 30

30 IN. BY

30 1/2 is 30 1/4
31 | 30 1/2
31 1/2 | 30 3/4

32	31	34	32 1/4	36	33 1/2
32 1/2	31 1/4	34 1/2	32 1/2	36 1/2	33 3/4
33	31 1/2	35	32 3/4	37	33 3/4
33 1/2	31 3/4	35 1/2	33	37 1/2	34
34	32	36	33 1/4	38	34 1/4
34 1/2	32 1/4	36 1/2	33 1/2	38 1/2	34 1/2
35	32 1/2	37	33 3/4	39	34 3/4
35 1/2	32 3/4	37 1/2	34	39 1/2	35
36	32 3/4	38	34 1/4	40	35 1/4
36 1/2	33	38 1/2	34 1/2	40 1/2	35 1/2
37	33 1/4	39	34 3/4	41	35 3/4
37 1/2	33 1/2	39 1/2	35	41 1/2	35 3/4
38	33 3/4	40	35 1/4	42	36
38 1/2	34	40 1/2	35 1/2	42 1/2	36 1/4
39	34 1/4	41	35 3/4	43	36 1/2
39 1/2	34 1/2	41 1/2	36	43 1/2	36 3/4
40	34 3/4	42	36 1/4	44	37
40 1/2	34 3/4	42 1/2	36 1/2	44 1/2	37 1/4
41	35	43	36 3/4	45	37 1/4
41 1/2	35 1/4	43 1/2	37	45 1/2	37 1/2
42	35 1/2	44	37 1/2	46	37 3/4
42 1/2	35 3/4	44 1/2	37 3/4	46 1/2	38
43	36	45	38	47	38 1/4
43 1/2	36 1/4	45 1/2	38 1/4	47 1/2	38 1/4
44	36 1/2	46	38 1/2	48	38 1/2
44 1/2	36 3/4	46 1/2	38 3/4	48 1/2	38 3/4
45	37	47	39	49	39
45 1/2	37 1/4	47 1/2	39 1/4	49 1/2	39 1/4
46	37 1/2	48	39 1/2	50	39 1/2
46 1/2	37 3/4	48 1/2	39 3/4	50 1/2	39 3/4
47	38	49	40	51	40
47 1/2	38 1/4	49 1/2	40 1/4	51 1/2	40 1/4
48	38 1/2	50	40 1/2	52	40 1/2
48 1/2	38 3/4	50 1/2	41	52 1/2	40 3/4
49	39	51	41 1/4	53	41
49 1/2	39 1/4	51 1/2	41 1/2	53 1/2	
50	39 1/2	52	42	54	
50 1/2	39 3/4	52 1/2	42 1/4		
51	40	53	42 1/2		
51 1/2	40 1/4	53 1/2	43		
52	40 1/2	54	43 1/2		
52 1/2	41		44		
53	41 1/4		44 1/2		
53 1/2	41 1/2		45		
54	41 3/4		45 1/2		

31 IN. BY

31 1/2 is 31 1/4

30 1/2 IN. BY

31 is 30 3/4
31 1/2 | 31
32 | 31 1/4
32 1/2 | 31 1/2
33 | 31 3/4
33 1/2 | 32

31 1/2 IN. BY

32 is 31 3/4
32 1/2 | 32
33 | 32 1/4
33 1/2 | 32 1/2
34 | 32 3/4
34 1/2 | 33
35 | 33 1/4
35 1/2 | 33 1/2
36 | 33 3/4
36 1/2 | 34
37 | 34 1/4
37 1/2 | 34 1/2
38 | 34 3/4
38 1/2 | 35

39	35	42	36 3/4	46	38 3/4
39 1/2	35 1/4	42 1/2	37	46 1/2	38 3/4
40	35 1/2	43	37	47	39
40 1/2	35 3/4	43 1/2	37 1/4	47 1/2	39 1/4
41	36	44	37 1/2	48	39 1/2
41 1/2	36 1/4	44 1/2	37 3/4	48 1/2	39 3/4
42	36 1/2	45	38	49	40
42 1/2	36 3/4	45 1/2	38 1/4	49 1/2	40
43	36 3/4	46	38 1/4	50	40 1/4
43 1/2	37	46 1/2	38 1/2	50 1/2	40 1/2
44	37 1/4	47	38 3/4	51	40 3/4
44 1/2	37 1/2	47 1/2	39	51 1/2	41
45	37 3/4	48	39 1/4	52	41
45 1/2	37 3/4	48 1/2	39 1/2	52 1/2	41 1/4
46	38	49	39 1/2	53	41 1/2
46 1/2	38 1/4	49 1/2	39 3/4	53 1/2	41 3/4
47	38 1/2	50	40	54	42
47 1/2	38 3/4	50 1/2	40		
48	39	51	40 1/4	33 IN. BY	
48 1/2	39	51 1/2	40 1/2		
49	39 1/4	52	40 3/4	33 1/2 is 33 1/4	
49 1/2	39 1/2	52 1/2	41	34	33 1/2
50	39 3/4	53	41	34 1/2	33 3/4
50 1/2	40	53 1/2	41 1/4	35	34
51	40	54	41 1/2	35 1/2	34 1/4
51 1/2	40 1/4			36	34 1/2
52	40 1/2	32 1/2 IN. BY		36 1/2	34 3/4
52 1/2	40 3/4	33 is 32 3/4		37	35
53	40 3/4	33 1/2	33	37 1/2	35 1/4
53 1/2	41	34	33 1/4	38	35 1/2
54	41 1/4	34 1/2	33 1/2	38 1/2	35 3/4
		35	33 3/4	39	35 3/4
32 IN. BY		35 1/2	34	39 1/2	36
		36	34 1/4	40	36 1/4
32 1/2 is 32 1/4		36 1/2	34 1/2	40 1/2	36 1/2
33	32 1/2	37	34 3/4	41	36 3/4
33 1/2	32 3/4	37 1/2	35	41 1/2	37
34	33	38	35 1/4	42	37 1/4
34 1/2	33 1/4	38 1/2	35 1/2	42 1/2	37 1/2
35	33 1/2	39	35 1/2	43	37 3/4
35 1/2	33 3/4	39 1/2	35 3/4	43 1/2	38
36	34	40	36	44	38
36 1/2	34 1/4	40 1/2	36 1/4	44 1/2	38 1/4
37	34 1/2	41	36 1/2	45	38 1/2
37 1/2	34 3/4	41 1/2	36 3/4	45 1/2	38 1/2
38	34 3/4	42	37	46	38 3/4
38 1/2	35	42 1/2	37 1/4	46 1/2	39
39	35 1/4	43	37 1/2	47	39 1/4
39 1/2	35 1/2	43 1/2	37 1/2	47 1/2	39 1/2
40	35 3/4	44	37 3/4	48	39 3/4
40 1/2	36	44 1/2	38	48 1/2	39 3/4
41	36 1/4	45	38 1/4	49	40
41 1/2	36 1/2	45 1/2	38 1/2	49 1/2	40 1/4

50	40 1/2	34 IN. BY		40	37 1/4
50 1/2	40 3/4	34 1/2 is 34 1/4		40 1/2	37 1/2
51	40 3/4	35	34 1/2	41	37 1/2
51 1/2	41	35 1/2	34 3/4	41 1/2	37 3/4
52	41 1/4	36	35	42	38
52 1/2	41 1/4	36 1/2	35 1/4	42 1/2	38 1/4
53	41 1/2	37	35 1/2	43	38 1/2
53 1/2	41 3/4	37 1/2	35 1/2	43 1/2	38 3/4
54	42	38	35 3/4	44	39
		38 1/2	36	44 1/2	39 1/4
33 1/2 IN. BY		39	36 1/4	45	39 1/2
		39 1/2	36 1/2	45 1/2	39 1/2
34 is 33 3/4		40	36 3/4	46	39 3/4
34 1/2	34	40 1/2	37	46 1/2	40
35	34 1/4	41	37 1/4	47	40 1/4
35 1/2	34 1/2	41 1/2	37 1/2	47 1/2	40 1/2
36	34 3/4	42	37 3/4	48	40 3/4
36 1/2	35	42 1/2	38	48 1/2	41
37	35 1/4	43	38	49	41
37 1/2	35 1/2	43 1/2	38 1/4	49 1/2	41 1/4
38	35 3/4	44	38 1/2	50	41 1/2
38 1/2	36	44 1/2	38 3/4	50 1/2	41 3/4
39	36 1/4	45	39	51	42
39 1/2	36 1/2	45 1/2	39 1/4	51 1/2	42 1/4
40	36 1/2	46	39 1/2	52	42 1/4
40 1/2	36 3/4	46 1/2	39 3/4	52 1/2	42 1/2
41	37	47	40	53	42 3/4
41 1/2	37 1/4	47 1/2	40 1/4	53 1/2	43
42	37 1/2	48	40 1/2	54	43 1/4
42 1/2	37 3/4	48 1/2	40 1/2	35 IN. BY	
43	38	49	40 3/4		
43 1/2	38 1/4	49 1/2	41	35 1/2 is 35 1/4	
44	38 1/2	50	41 1/4	36	35 1/2
44 1/2	38 1/2	50 1/2	41 1/2	36 1/2	35 3/4
45	38 3/4	51	41 3/4	37	36
45 1/2	39	51 1/2	41 3/4	37 1/2	36 1/4
46	39 1/4	52	42	38	36 1/2
46 1/2	39 1/2	52 1/2	42 1/4	38 1/2	36 3/4
47	39 3/4	53	42 1/2	39	37
47 1/2	40	53 1/2	42 3/4	39 1/2	37 1/4
48	40	54	42 3/4	40	37 1/2
48 1/2	40 1/4	34 1/2 IN. BY		40 1/2	37 3/4
49	40 1/2	35 is 34 3/4		41	38
49 1/2	40 3/4	35 1/2	35	41 1/2	38
50	41	36	35 1/4	42	38 1/4
50 1/2	41 1/4	36 1/2	35 1/2	42 1/2	38 1/2
51	41 1/4	37	35 3/4	43	38 3/4
51 1/2	41 1/2	37 1/2	36	43 1/2	39
52	41 3/4	38	36 1/4	44	39 1/4
52 1/2	42	38 1/2	36 1/2	44 1/2	39 1/2
53	42 1/4	39	36 3/4	45	39 3/4
53 1/2	42 1/2	39 1/2	37	45 1/2	40
54	42 1/2	39 1/2	37	46	40

46½	40¼	53½	43½	43	39½
47	40½	54	43¾	43½	39¾
47½	40¾	36 IN. BY			
48	41	36½ is 36¼			
48½	41¼	37	36½	44	40
49	41½	37½	36¾	44½	40¼
49½	41¾	38	37	45	40½
50	42	38½	37¼	45½	40¾
50½	42½	39	37½	46	41
51	42¾	39½	37¾	46½	41¼
51½	43	40	38	47	41½
52	43½	40½	38½	47½	41¾
52½	43¾	41	38¾	48	42
53	44	41½	39	48½	42¼
53½	44½	42	39½	49	42½
54	44¾	42½	40	49½	42¾
35½ IN. BY					
36	35¾	43	39¼	50	43
36½	36	43½	39½	50½	43½
37	36¼	44	39¾	51	43¾
37½	36½	44½	40	51½	44
38	36¾	45	40¼	52	44¼
38½	37	45½	40½	52½	44½
39	37¼	46	40¾	53	44¾
39½	37½	46½	41	53½	45
40	37¾	47	41¼	54	45¼
40½	38	47½	41½	37 IN. BY	
41	38¼	48	41¾	37½ is 37¼	
41½	38½	48½	42	38	37½
42	38¾	49	42¼	38½	37¾
42½	39	49½	42½	39	38
43	39¼	50	42¾	39½	38¼
43½	39½	50½	43	40	38½
44	39¾	51	43½	40½	38¾
44½	40	51½	43¾	41	39
45	40¼	52	44	41½	39¼
45½	40½	52½	44½	42	39½
46	40¾	53	44¾	42½	39¾
46½	41	53½	45	43	40
47	41¼	54	45¼	43½	40¼
47½	41½	36½ IN. BY			
48	41¾	37 is 36¾			
48½	42	37	37	44	40½
49	42¼	37½	37¼	44½	40¾
49½	42½	38	37½	45	41
50	42¾	38½	37¾	45½	41¼
50½	43	39	38	46	41½
51	43½	39½	38½	46½	41¾
51½	43¾	40	38¾	47	42
52	44	40½	39	47½	42¼
52½	44½	41	39½	48	42½
53	44¾	41½	39¾	48½	42¾
		42	40	49	43
		42½	40½	49½	43½
			41	50	43¾
			41½	50½	44
			42	51	44¼
			42½	51½	44½
			43	52	44¾
			43½	52½	45
			44	53	45¼
			44½	53½	45½
			45	54	45¾

52	43¾	44	41	53½	45¼
52½	44	44½	41	54	45½
53	44¼	45	41¼	39 IN. BY	
53½	44½	45½	41½	39½ is 39¼	
54	44¾	46	41¾	40	39½
54½	45	46½	42	40½	39¾
37½ IN. BY					
38	37¾	47	42¼	41	40
38½	38	47½	42½	41½	40¼
39	38¼	48	42¾	42	40½
39½	38½	48½	43	42½	40¾
40	38¾	49	43¼	43	41
40½	39	49½	43½	43½	41¼
41	39¼	50	43¾	44	41½
41½	39½	50½	44	44½	41¾
42	39¾	51	44	45	42
42½	40	51½	44½	45½	42¼
43	40¼	52	44¾	46	42½
43½	40½	52½	45	46½	42¾
44	40¾	53	45¼	47	43
44½	41	53½	45½	47½	43½
45	41¼	54	46	48	43¾
45½	41½	38½ IN. BY			
46	41¾	39 is 38¾			
46½	42	39	39	49	43¾
47	42¼	39½	39¼	50	44¼
47½	42½	40	39½	50½	44½
48	42¾	40½	39¾	51	44¾
48½	43	41	40	51½	45
49	43¼	41½	40¼	52	45¼
49½	43½	42	40½	52½	45½
50	43¾	42½	40¾	53	45¾
50½	44	43	41	54	46
51	44¼	43½	41¼	39½ IN. BY	
51½	44½	44	41½	40 is 39¾	
52	44¾	44½	41¾	40	40
52½	45	45	42	40½	40¼
53	45¼	45½	42¼	41	40½
53½	45½	46	42½	41½	40¾
54	46	46½	42¾	42	41
38 IN. BY					
38½	38¼	47	42	42½	41½
39	38½	47½	42¼	43	41¾
39½	38¾	48	42½	43½	41½
40	39	48½	42¾	44	41¾
40½	39¼	49	43	44½	42
41	39½	49½	43¼	45	42¼
41½	39¾	50	43½	45½	42½
42	40	50½	43¾	46	42¾
42½	40¼	51	44	46½	43
43	40½	51½	44½	47	43
43½	40¾	52	44¾	47½	43¼
		52½	45	48	43½
		53	45¼	48½	43¾

53	49 $\frac{1}{4}$	48 IN. BY	50 IN. BY
53 $\frac{1}{2}$	49 $\frac{1}{2}$	48 $\frac{1}{2}$ is 48 $\frac{1}{4}$	50 $\frac{1}{2}$ is 50 $\frac{1}{4}$
54	49 $\frac{3}{4}$	49	51
46 $\frac{1}{2}$ IN. BY		48 $\frac{1}{2}$	50 $\frac{1}{2}$
47 is 46 $\frac{3}{4}$		49 $\frac{1}{2}$	51 $\frac{1}{2}$
47 $\frac{1}{2}$	47	50	52
48	47 $\frac{1}{4}$	50 $\frac{1}{2}$	52 $\frac{1}{2}$
48 $\frac{1}{2}$	47 $\frac{1}{2}$	51	53
49	47 $\frac{3}{4}$	51 $\frac{1}{2}$	53 $\frac{1}{2}$
49 $\frac{1}{2}$	48	52	54
50	48 $\frac{1}{4}$	52 $\frac{1}{2}$	50 $\frac{1}{4}$
50 $\frac{1}{2}$	48 $\frac{1}{2}$	53	50 $\frac{1}{2}$
51	48 $\frac{3}{4}$	53 $\frac{1}{2}$	50 $\frac{3}{4}$
51 $\frac{1}{2}$	49	54	51
52	49 $\frac{1}{4}$	48 $\frac{1}{2}$ IN. BY	
52 $\frac{1}{2}$	49 $\frac{1}{2}$	49 is 48 $\frac{3}{4}$	
53	49 $\frac{3}{4}$	49 $\frac{1}{2}$	49
53 $\frac{1}{2}$	49 $\frac{3}{4}$	50	49 $\frac{1}{4}$
54	50	50 $\frac{1}{2}$	49 $\frac{1}{2}$
47 IN. BY		51	49 $\frac{3}{4}$
47 $\frac{1}{2}$ is 47 $\frac{1}{4}$		51 $\frac{1}{2}$	50
48	47 $\frac{1}{2}$	52	50 $\frac{1}{4}$
48 $\frac{1}{2}$	47 $\frac{3}{4}$	52 $\frac{1}{2}$	50 $\frac{1}{2}$
49	48	53	50 $\frac{3}{4}$
49 $\frac{1}{2}$	48 $\frac{1}{4}$	53 $\frac{1}{2}$	51
50	48 $\frac{1}{2}$	54	51 $\frac{1}{4}$
50 $\frac{1}{2}$	48 $\frac{3}{4}$	49 IN. BY	
51	49	49 $\frac{1}{2}$ is 49 $\frac{1}{4}$	
51 $\frac{1}{2}$	49 $\frac{1}{4}$	50	49 $\frac{1}{2}$
52	49 $\frac{1}{2}$	50 $\frac{1}{2}$	49 $\frac{3}{4}$
52 $\frac{1}{2}$	49 $\frac{3}{4}$	51	50
53	50	51 $\frac{1}{2}$	50 $\frac{1}{4}$
53 $\frac{1}{2}$	50 $\frac{1}{4}$	52	50 $\frac{1}{2}$
54	50 $\frac{1}{2}$	52 $\frac{1}{2}$	50 $\frac{3}{4}$
47 $\frac{1}{2}$ IN. BY		53	51
48 is 47 $\frac{3}{4}$		53 $\frac{1}{2}$	51 $\frac{1}{4}$
48 $\frac{1}{2}$	48	54	51 $\frac{1}{2}$
49	48 $\frac{1}{4}$	49 $\frac{1}{2}$ IN. BY	
49 $\frac{1}{2}$	48 $\frac{1}{2}$	50 is 49 $\frac{3}{4}$	
50	48 $\frac{3}{4}$	50 $\frac{1}{2}$	50
50 $\frac{1}{2}$	49	51	50 $\frac{1}{4}$
51	49 $\frac{1}{4}$	51 $\frac{1}{2}$	50 $\frac{1}{2}$
51 $\frac{1}{2}$	49 $\frac{1}{2}$	52	50 $\frac{3}{4}$
52	49 $\frac{3}{4}$	53	51
52 $\frac{1}{2}$	50	53 $\frac{1}{2}$	51 $\frac{1}{4}$
53	50 $\frac{1}{4}$	54	51 $\frac{1}{2}$
53 $\frac{1}{2}$	50 $\frac{1}{2}$	52 IN. BY	
54	50 $\frac{3}{4}$	52 $\frac{1}{2}$ is 52 $\frac{1}{4}$	
48 $\frac{1}{2}$ IN. BY		53	52 $\frac{1}{2}$
48 is 47 $\frac{3}{4}$		53 $\frac{1}{2}$	52 $\frac{3}{4}$
48 $\frac{1}{2}$	48	54	53
49	48 $\frac{1}{4}$	52 $\frac{1}{2}$ IN. BY	
49 $\frac{1}{2}$	48 $\frac{1}{2}$	53 is 52 $\frac{3}{4}$	
50	48 $\frac{3}{4}$	53 $\frac{1}{2}$	53
50 $\frac{1}{2}$	49	54	53 $\frac{1}{4}$
51	49 $\frac{1}{4}$	53 IN. BY	
51 $\frac{1}{2}$	49 $\frac{1}{2}$	53 $\frac{1}{2}$ is 53 $\frac{1}{4}$	
52	49 $\frac{3}{4}$	54	53 $\frac{1}{2}$
52 $\frac{1}{2}$	50	53 $\frac{1}{2}$ IN. BY	
53	50 $\frac{1}{4}$	54 is 53 $\frac{3}{4}$	
53 $\frac{1}{2}$	50 $\frac{1}{2}$		
54	50 $\frac{3}{4}$		

THE
EXPLANATION AND USE
OF THE FOLLOWING
TABLE
OF
SOLID MEASURE.

I. This table begins with two inches, the side of the square, and by the addition of a quarter of an inch, enlarges itself to the extent of 54 inches (or a yard and a half), the side of the square.

II. Every page of this table consists of two distinct parts, divided from each other by a double line; and at the top of each of the said parts is set down the side of the square, or one-fourth of the girt, or circumference, of the piece of timber, stone, or other solid, intended to be measured.

III. The first column to the left hand shows the several lengths, in feet, from one quarter of a foot to 45 feet, and of such a piece of timber, whose side of the square (or $\frac{1}{4}$ of the girt) is set down at the top.

IV. The three rows of figures in the second column, marked at the top with Ft. In. Pa. is the solid content in feet, inches, and 12th parts of an inch, answering to every foot in length, in the left-hand column.

TO MEASURE SQUARE TIMBER.

1. With a two-foot, or any other rule, measure the length of the piece in feet, and set it down in your memorandum book.

2. Then with your rule, if your timber be equal-sided, take the side of the

square in inches and quarters, if there be any, and set that down likewise.

But note, that if your timber, or stone, be unequal-sided, i.e. if it be broader one way than the other, in this case you must first reduce it to a square by the table of unequal sided timber, beginning page 12 and ending page 32.

3. Having set down the length in feet, and the side of the square in inches and quarters, as above directed, look at the top of the table of Solid Measure for the side of the square, and having found that, keep your eye down the left-hand column till you find the length of your piece in feet, and the three rows of figures, which stand opposite the length in feet, is the solid content in feet, inches, and 12th parts of an inch.

EXAMPLE I.

You have a piece of timber 10 feet long, and the side of the square is 7 inches—what is the solid content of it?

At the top of the table of Solid Measure find 7 inches, the side of the square, and keep your eye down the left-hand column till you come to 10 feet, the length of your piece, and opposite which you will find 3 : 4 : 10 (viz. 3 feet, 4 inches, and 10 twelfth-parts,) being the solid content of the piece required.

EXAMPLE II.

The length of a piece of timber is 19 feet, and the side of the square is $14\frac{3}{4}$ inches—what is the solid content?

Having found $14\frac{3}{4}$, the side of the square, look for 19 feet in the left-hand column, and opposite it stands 28 feet, 8 inches, and 5 twelfth-parts, which is the solid content of a piece 19 feet long and $14\frac{3}{4}$ inches square.

EXAMPLE III.

The length of a piece of timber is 40 feet, the side of it one way is 4 inches and 16 inches the other way—what is the solid content?

Note.—These differing sides must be reduced to a square by the table of unequal sided timber, as already taught, which square appears by the said table to be 8 inches.

Having found 8 at the top of the table of Solid Measure, look for 40 feet (the length of the piece) in the left-hand column, opposite which stands 17 feet, 9 inches, and 4 twelfth-parts, the solid content.

Note.—Keay's rule and tables make the content to be 27 feet, 3 quarters, and 48 inches, which is $9\frac{1}{2}$ feet too much, or 9s. 6d. in 27s. too much.

EXAMPLE IV.

There is a piece of timber 40 feet long, but the sides unequal, one side being 3 inches and the other side 18 inches—what is the solid content?

Having reduced the side (by the table of unequal-sided timber) to a square, it appears to be 7 inches and 1 quarter. Then, at the top of the table of Solid Measure find $7\frac{1}{4}$, the side of the square, and opposite 40 feet long, in the left-hand column, stands the content, viz. 14 feet, 7 inches, and 2 twelfth-parts.

Note.—Had this example been resolved by Keay's tables, and the rule he lays down for the measuring unequal sided timber, the answer, instead of being 14 feet 7 inches, would have been $30\frac{1}{2}$ feet, which is 16 feet too much.

When a piece of timber to be measured happens to have any odd parts of a foot in the length, as

EXAMPLE V.

Suppose a piece of timber to be 48 inches square, and $22\frac{1}{2}$ feet long—what is the solid content?

Look in the table of Solid Measure for 48 inches the side of the square, and 22 feet, the length, then find the $\frac{1}{2}$ inch at the bottom of the table, and by adding these together you have the solid content, viz.

	FT.	IN.	PA.
22 feet long is.....	352	0	0
$\frac{1}{2}$ a foot long is	8	0	0

The content required 360 0 0

Note.—Except the timber be so large as to carry a square of 30 inches, the half foot, or quarters, are seldom regarded.

Though it is seldom (or never) likely to happen in practice, yet we will sup-

pose you have occasion to measure a piece of timber or stone, whose side of the square is above 54 inches (or a yard and a half), which is the largest square in this table.

EXAMPLE VI.

You have a piece of timber whose side of the square is 76 inches, and the length 37 feet—what is the solid content?

Since you cannot find 76 inches, the side of the square, in the table, take the **HALF** of it, which is 38; find 38, the side of the square, and opposite 37 feet, the length, is 371 : 0 : 4, which set down four times,* and added together gives the content of the whole piece (of 76 inches square, and 37 feet long), viz. 1484 feet, 1 inch, and 4 twelfth parts of an inch

	F.	I.	P.
together gives the content of	371	0	4
the whole piece (of 76 inches	371	0	4
square, and 37 feet long),	371	0	4
viz. 1484 feet, 1 inch, and 4	371	0	4
twelfth parts of an inch			
	1484	1	4

* Because that half is but one quarter of the end of the piece, thus :

38 Inches	

OF HEWN TIMBER.

Note.—It is customary, when hewn timber is to be measured, to make use of a large pair of callipers to measure the thickness, or diameter of the piece in the middle, between both ends, (where, in case it were tapering timber one would girt it) which thickness, or diameter, is usually taken for the side of the square the piece will carry throughout. But this method is sometimes objected to, because all the cants, or angular parts, that are wanting to make the piece perfectly square, are measured in and accounted for (though not there) as so much real timber. And this objection carries still a greater weight, when only a small skirting is hewn off from the four opposite sides, whereby the piece becomes rather octangular, or eight-sided, than square; but to all this it is usually replied, that before the piece is hewn to a square there is a waste in the chips and slabs, which are only useful for the fire, and that the expense of hewing, &c. is more than the chips, &c. are worth.

TO MEASURE ROUND TIMBER THAT IS NOT TAPERING.

1. With a rule measure the length of the piece in feet, (and quarters of a foot,

if necessary) and set it down in your memorandum book; then reduce it to square timber, thus —

2. With a chalk line, or pack-thread, gird the piece in any place; then double the line twice, and you have one-fourth of the girt for the side of the square, which you must exactly measure upon your rule, and set down in inches and quarters of an inch. Having thus reduced the round timber to square timber,

3. Look at the top of the table of Solid Measure for the side of the square, equal to one-fourth of the girt, and keep your eye down the left-hand column, till you find the length of the piece in feet, and opposite which stands the content of the piece sought in solid feet, inches, and twelfth-parts of an inch.

EXAMPLE.

Let the length of a piece of round timber be 45 feet, and the girt 44 inches, one-fourth of which is 11 inches—I demand how much timber this piece contains?

At the top of the table of Solid Measure find 11 inches, the side of the square, (which is equal to one-fourth of the girt,) and in the left-hand column, opposite 45 (the length of the piece in feet) stands 37 : 9 : 9, that is 37 feet, 9 inches, and 9 twelfth-parts (or $\frac{3}{4}$) of an inch, which is the solid quantity of timber the tree contains.

TO MEASURE TAPERING TIMBER.

Tapering timber is timber that is smaller at one end than the other, as figure 3, and consequently it will not carry the same square from end to end throughout the whole piece; when you have found what square the tree will carry throughout, by taking one-fourth of the girt, (as you were taught on page 36.) you must proceed exactly as in the case of round timber.

To find what square a tree will carry throughout, the shape or figure of the tree should be very carefully observed,

and if the sides of the tree are straight from end to end, as figure 3, then it may be girt, and the square taken in the middle, from the butt end and top, as is the common practice amongst workmen; or you observe this

RULE

Take one-fourth of the girt at each of the ends, add them together, and take half of the sum for the side of the square, which the tree will carry throughout, as you will find exemplified in example III. page 34.

Note.—If the tree does not taper gradually, but is unequally thick, then you may girt it oftener; always remembering to divide the sum total of the several fourth parts of the girt, by the number of times the piece was girded, and it gives the side of the square the tree will carry throughout.

If you have any odd parts of a foot in the length of a tree, you are to proceed as directed in the case of square timber having odd parts in the length. See page 34.

EXAMPLE I.

Let the circumference of a tree, or piece of round timber, (found by girding it) be 36 inches, one quarter of which is 9 inches, the side of the square, and let the length of the piece be 40 feet—what quantity of timber is in this piece?

Find 9 inches, the side of the square, and opposite to 40 feet stands 22 feet, 6 inches, which is the quantity of timber contained in a piece that is 40 feet long and 36 inches round.

EXAMPLE II.

Let the girt of a piece of timber be 75 inches, one quarter thereof is $18\frac{3}{4}$ inches, the side of the square, and the length of the piece 45 feet—how much solid timber doth this piece contain?

Find $18\frac{3}{4}$ inches, the side of the square, and opposite 45 feet, the length of the piece, stands the solid content, viz. 109 feet, 10 inches, and 4 twelfth parts of an inch.

EXAMPLE III.

Suppose that at the largest end of a tree one-fourth of the girt (or side of

the square) is 50 inches, and at the smaller end but 30 inches, and the length of the tree 25 feet—what quantity of solid timber does that tree contain?

	INCHES.
The side of the square at the larger end is.....	50
The side of the square at the smaller end is	30

The sum...80

Half the sum is 40 inches, and that is the side of the square which the tree will carry throughout. Having thus obtained the side of the square, look at the top of the table of Solid Measure for 40 inches, and in the left-hand column for 25 feet (the length), opposite which stands 277 feet, 9 inches, and 4 twelfth parts of an inch, which is the quantity of solid timber the tree contains.

Note.—If you should ever have occasion to measure a tree whose sides is more than 54 inches, you must proceed as directed in the case of square timber when the square is more than 54 inches. See page 36.

If a tree should be rounding or bulging out (as fig 4), so that towards the middle it may be as large, or near it, as at the bottom, then it must be measured at twice, (which workmen call joggling the piece,) viz. the length, A D, that continues; of one and the same size, or near it, singly by itself, and so also must the remainder, D B, and their quantities added together will be the content of the whole tree.

Now had this tree (fig. 4) been measured at once (or by one dimension) as fig. 3, then its girt would have been taken at F, where it is very small, and all the extraordinary thickness, *a a*, quite round about the small body D B, would have been lost in the measure. And, for this reason, those who are to measure timber should be very cautious how they agree (before they begin to measure,) that let the middle of pieces of timber fall out how they will, great or small, their girt should be taken there. Because where one tree is largest, (or its mean thickness) in the middle there are nine or ten that are less, and when their girts are taken at the middle they cannot fail of losing many loads in a large quantity of timber.

If the tree is crooked the length is not to be taken on either the concave (hollow) or convex (outarching) side.

It is a customary allowance to the buyer to take the girt where he pleases between the greater end and the middle of the tree.

Branches or boughs measuring two feet in compass (or 6 inches for $\frac{1}{4}$ of the girt) are reck-

oned as timber, and their content is to be found and added to that of the tree.

So much of the trunk as measures less than two feet in compass (or 6 inches for $\frac{1}{4}$ of the girt) is not admitted to be timber.

OF MAKING AN ALLOWANCE FOR THE BARK.

In measuring trees that have their bark on for sale, it is common to make an allowance to the buyer on account of the bark, thus, in oak one-tenth or one-twelfth part of the circumference is deducted; but the allowance for the bark of elm, beech, ash, &c., should be less. Some measurers insist on one inch out of one-fourth of the whole girt for it, viz. if one-fourth of the girt is found to be 9 inches then 1 inch is abated, and one-fourth of the girt is reckoned at 8 inches only. Others say that if it is an old thick-barked tree one inch must be abated in one-fourth part of the girt for the bark, but in young growing timber half an inch may be sufficient, as every practitioner will easily judge. This deduction being made, is supposed to reduce the compass to that which the tree will have when the bark is stripped off. Therefore observe this

RULE.—From the given circumference subtract the allowance for bark, and with the remaining compass find the solid content as already taught.

OF MEASURING TIMBER THAT IS STANDING.

In measuring timber standing, it is sufficient if you have a very long pole divided into feet only, a pocket foot rule divided into inches, and a ladder to get up with readily, to measure the girt of the tree at the middle height, to which it runs timber, i. e. as far as it will carry a square of 6 inches, or will measure 24 inches round, and then you proceed to find the contents as already taught.

I have known a steward who, at his first entering into business, was so exact as to take an account of every single timber tree, as well as others likely to

become timber, in all the woods within his master's several manors; and he effectually did this to the greatest advantage, by having a book ruled with proper columns in the following order:

I. To insert the fourth part of the girt of each tree, in inches.

II. The length of each tree, in feet.

III. The number of solid feet in each tree.

IV. The value per foot that each tree is worth, according to its dimensions and goodness.

V. The value of the body of each tree, in proportion to the aforesaid price.

VI. The value of the head of each tree.

VII. The value of the bark of each oak tree, which generally holds to be about a third part of the value of the body and head.

VIII. A column for the value of the body, head, and bark, added together.

A book upon this plan can never fail of giving great satisfaction to a master, who has then something to depend upon whenever his necessities or his inclination, may call for a certain sum of money. However, after a sale, the book must be altered, and such trees struck out of it as are felled.

When an account is taken of the several timber trees, (in the manner I have mentioned,) they should be numbered with iron stamps made on purpose; but before the stamp is applied, the rough part of the bark should be taken off with a hatchet, that the impression may be made easy and visible; and to make it more lasting the stamp should not go deeper than the bark, (otherwise the numbers will soon grow up) when it may last several years by renewing, which is a very desirable circumstance.

The foregoing examples, with what has already been said, are sufficient to make the business of measuring both square and round timber, stone, &c. easy to common capacities. However, (for practice sake) I shall suppose the learner has to measure ten trees, or pieces of timber:

Let him set down their numbers and

dimensions as in the following columns, and then find their contents as already taught, and set that down against each tree as under.

No. of Trees.	Side Square in Inches.	Length in Feet.	By this New Method. Ft. In. Pa.	By KEAY. Ft. Qrs. In.	By DARLING. Feet and 10000 Parts.
1	9	10	5	5	5.6250
2	10½	14	10	2 216	10.7187
3	15	11	7 8	2 378	17.1675
4	20½	16	2 8 3 4	0 324	46.6944
5	16	24	4 2 8 0	2 336	42.6666
6	16	23	4 0 8 0	2 288	40.8888
7	36	18	4 0 0 0	3 240	162.0000
8	26	28	16 2 0 0	0 000	131.4442
9	31	17	13 1 5 5	1 336	113.4513
10	35	30	25 5 2 6	0 360	255.2083
Total....				825 3 234	825.8848

Besides the contents given by this new method, I have likewise set down the contents of each tree as given by KEAY and DARLING, to show that the method is more intelligible, and better suited to common capacities, than either of theirs. These twelfth parts of an inch are easily cast up, and readily understood; for here you have nothing more to do than to carry 1 to the inches for every 12 in the parts, and 1 to the feet for every 12 in the inches: whereas, by KEAY'S method, you must carry 1 to the quarters for every 432 in the inches, and 1 to the feet for every 4 in the quarters; and by DARLING'S method you must carry 1 to the feet of every 10000 in the parts. Both which numbers (432 inches and 10000 parts of a foot) are very difficult to conceive, and, consequently, very troublesome and perplexing to every man that is not versed in decimal arithmetic and mensuration.

OF REDUCING TIMBER TO LOADS.

Note — Measurers and Workmen reckon 40 feet of unhewn or rough timber, and 50 feet of

hewn timber, to a load, supposed to weigh a ton, or 20 hundred. For hewn timber is measured by the square, but rough timber by the girt (or quarter compass); therefore in the buying of timber it amounts to much the same whether it be measured by the girt, at 40 feet solid to a load, or by the square, at 50 feet to a load. Therefore,

When timber is to be reduced to loads, divide the feet, in rough or unhewn timber, by 40, and it gives the loads. Or,

Divide the feet, in hewn timber, by 50, and it gives the loads.

SOME CURIOUS OBSERVATIONS CONCERNING MEASURING TIMBER BY SEVERAL DIMENSIONS.

Of measuring fig. 5. (See Frontispiece) by one dimension, and also by three dimensions, &c.

The whole length A G, by one dimension.

Now let us consider fig. 5 intended to represent a piece of timber that is 24 feet long, the girt at the butt-end A 8 feet, one fourth of which is 24 inches, the girt at the top G 12 inches, one-fourth of which is 3 inches, and (as the sides are supposed to be nearly straight) the girt in the middle at D 54 inches, one-fourth of which is 13½ inches. Look in the Table of Solid Measure for 13½ inches the side, and 24 feet the length, and you will find the content of the piece to be 30 feet, 4 inches, and 6 twelfth parts which 6 twelfth parts are equal to half an inch when measured by one dimension.

Of the length A E, by one dimension, which is but two-thirds of the length A G.

Having, as above, found the content of the whole A G, by one dimension, to be 30 feet, 4 inches, and 6 twelfth parts, let us now try what this piece A E will produce when measured by one dimension, we then having a length only of 16 feet, from A to E, (instead of 24 feet, from A to G, as before,) and that one-fourth of the girt in the middle at C is 17 inches. Now if you look in the table of Solid Measure for 17 inches, the side of the square at C, and 16 feet, the length, you will find this piece A E, to contain 32 feet, 1 inch, and 4 twelfth parts of timber, not-

withstanding 8 feet at the top, from E to G, is cut off and not taken the least notice of; whereas when this top was left on, the whole, from A to G, measured but 30 feet, 4 inches, and 6 twelfth parts, so that by cutting off and rejecting 8 feet at the top, we gain near 2 feet of timber.

Note.—The content of this piece A E, we had not room to specify in the Frontispiece.

THE WHOLE LENGTH BY THREE DIMENSIONS.

Now let us consider fig. 5 intended to represent a piece of timber that is 24 feet long, the girt at the butt-end A 8 feet, one-fourth of which is 24 inches, the girt at top G 12 inches, one-fourth of which is 3 inches, and (as the sides are supposed to be nearly straight) the girt in the middle at D 54 inches, one-fourth of which is $13\frac{1}{2}$ inches. Look in the table of Solid Measure for $13\frac{1}{2}$ inches, the side of the square, and 24 feet the length, and you will find the contents of the piece to be 30 feet, 4 inches, and 6 twelfth parts, when measured by one dimension.

Having thus found the content of A G by one dimension to be 30 feet, 4 inches, and 6 twelfth parts, let us now proceed to see what it will produce when it is cut into three equal lengths, and measured by three dimensions, as described in fig. 5, viz.

First—The piece A C, whose length is 8 feet, the girt at the butt-end A 8 feet, one-fourth of which is 24 inches, the girt at the top C 5 feet, 8 inches, one-fourth of which is 17 inches, and the girt in the middle at B 6 feet, 10 inches, one-fourth of which is $20\frac{1}{2}$ inches. Look in the table of Solid Measure for $20\frac{1}{2}$ inches, the side of the square, and 8 feet the length, and you will find the content of the piece A C to be 23 feet, 4 inches, and 2 twelfth parts, which is only 7 feet less than the whole A G (24 feet) when measured together; so that by cutting off 16 feet at the top from C to G, which is no less than two-thirds of the whole length, you do not lose quite 7 solid feet of timber.

Secondly—The piece C E, whose length is also 8 feet, the girt at the butt-end C 5 feet, 8 inches, one fourth of which is 17 inches, the girt at the top E 40 inches, one-fourth of which is 10 inches, and the girt in the middle at D 4 feet, 6 inches, one-fourth of which is $13\frac{1}{2}$ inches. Look in the table of Solid Measure for $13\frac{1}{2}$ inches, the side of the square, and 8 feet the length, when you will find the content of the piece C E to be 10 feet, 1 inch, and 6 twelfth parts.

Thirdly—The piece E G, whose length is likewise 8 feet, the girt at the butt-end E 40 inches, one-fourth of which is 10 inches, the girt at the top G 12 inches one-fourth of which is 3 inches, and the girt in the middle at F 26 inches, one-fourth of which is $6\frac{1}{2}$ inches. Look into the table of Solid Measure for $6\frac{1}{2}$ inches, the side of the square, and 8 feet the length, when you will find the content of the piece, E G to be 2 feet, 4 inches, and 2 twelfth parts.

Having thus measured the whole from A to G by three dimensions, let us proceed.

OF MEASURING PART OF FIG. 5, VIZ. FROM C TO G. BY ONE DIMENSION, ALSO BY TWO DIMENSIONS.

By one dimension.

Now let us suppose 8 feet to be cut off at the butt-end, viz. from A to C, and proceed to measure the remainder C G. Look in the table of Solid Measure for ten inches, the side of the square at E, and 16 feet the length, and you will find the whole contains 11 feet, 1 inch, and 4 twelfth parts.

By two dimensions.

Let us now suppose it cut in two in the middle at E, and measure each part by itself. For the first C E you must look in the table of Solid Measure for $13\frac{1}{2}$ inches, the side of the square at D, and 8 feet the length, and you will find C E to contain 10 feet, 1 inch, and 6 twelfth parts.

Let us now measure the piece E G and by looking in the table of Solid Measure for $6\frac{1}{2}$ inches, the side of the square at F, and 8 feet the length, you will find E G to contain 2 feet, 4 inches,

and 2 twelfth parts; so that the whole of C G measures one solid foot and a half more when it is measured at twice, than it did when it was measured at one dimension.

SOME USEFUL OBSERVATIONS

DRAWN FROM THE FOREGOING METHODS OF MEASURING FIG. 5.

This piece of timber (Fig. 5.) and the above manner of measuring it, if well considered, show the imprudence of those sellers who (thinking it may be an advantage to them) leave the pieces with their long taper tops on to a great length, whereby the girt comes to be taken in a much smaller part of the tree than it ought, or would have been if the top had been cut off. And it may likewise serve to show the advantage there is of buying in such a piece of timber (24 feet long) measured by one dimension, and of selling it out again by three dimensions, after it is cut into three pieces, or lengths, of 8 feet each.*

And here it may be farther worth observing, that though in Fig. 5 the sides of the tree are supposed to be nearly straight from the butt to the top, viz. from A to G, yet this very rarely happens to be the case; for, on the contrary, most trees hold an equal thickness (or near it) many feet upwards from the butt, and consequently measure much more than when they taper or diminish gradually from the butt to near the top, as fig. 5 is supposed to do.

THE TABLE OF SOLID MEASURE APPLIED TO THE FREIGHTING OF SHIPS.

The table of Solid Measure (begin.

* Look in the Frontispiece, and you will see that fig. 5, measured by 3 dimensions, measures to $35\frac{3}{4}$ solid feet, which at 1s. per foot comes to	}	£	s.	d.
But measured by one dimension it measures no more than $30\frac{1}{4}$ solid feet, which at 1s. per foot, comes to		1	15	9
	}	1	10	3

So that this piece of timber, fig. 5, though it is bought in and sold out at the same price per foot, and by the very same method of measuring, yet here is 5s. 6d. gained by cutting it into three lengths of 8 feet each.

ning page 52 and ending page 156) and which is particularly explained on page 33, &c., having been made use of for many years past by several judicious merchants, for the expeditious ascertaining the value of the carriage of goods which pay freight by the solid foot; and the table being as well adapted for the freighting of ships as for the valuing of timber, I have, to this new edition, added the following directions for the benefit of those who would apply it to the freighting of ships, and they are such as I think ought to prevail; but so long as some measurers will be for taking the dimensions, and valuing their amount nearer than others, there will always be room for disputes. See fig. 6 in the Frontispiece.

Note.—It is usual to make an abatement of one-fifth upon the admeasurement of the package of coarse goods.

TO FIND HOW MANY SOLID FEET (IN ORDER TO ASCERTAIN THE FREIGHT) ARE CONTAINED IN ANY CASE, BALE, CASK, &c. i.e. HOW MANY SOLID FEET THEY WILL TAKE UP IN A SHIP.

Observe that goods paying freight by the solid foot are commonly packed up in

1. Cases, chests, or trunks;
2. Bales, trusses, or bundles;
3. Casks, vats or fats;

and their contents are all found by one and the same method, viz. taking the length and girting them, thus—

1. With a rule measure the length of the package and write it down in feet and inches in your memorandum book; having done this, then you are to reduce the package to a square, which is immediately done thus,

2. With a line, or packthread, girt the package, then double the line together twice, and you have one-fourth of the girt (for the side of the square); which measure upon your rule, and write it down in inches and quarters of an inch. Having thus reduced the package to a square, then,

3. Look at the top of the table of solid measure for the side of the square

(which is equal to one-fourth of the girt,) and keep your eye down the left-hand column till you find the length of the package in feet, opposite which stands the number of solid feet, inches, and twelfth parts it contains; but these twelfth parts and the inches are usually rejected unless amounting to half a foot.

EXAMPLE I.

Let the length of a case, chest, or trunk, be 36 inches, (which is equal to 3 feet,) and the girt 96 inches ($\frac{1}{4}$ of which is 24 inches,) I demand how many solid feet such a case contains?

At the top of the table find 24 inches, the side, (equal to $\frac{1}{4}$ of the girt of 96 inches,) then keep your eye down the left-hand column, and opposite 3 feet, the length, (which is equal to 36 inches), you have 12 feet, and so many solid feet you are to pay freight for at the price agreed upon.

Note.—When you cannot find the length of the package at once, you are to take it out at twice, as in the following example:—

EXAMPLE II.

Let the length of a case, &c. be 54 inches (which is equal to $4\frac{1}{2}$ feet,) and the girt 152 inches ($\frac{1}{4}$ of which is 38 inches.) I demand how many solid feet the case contains?

At the top of the table find 38 inches, the side, (equal to $\frac{1}{4}$ of the girt of 152 inches,) then keep your eye down the left-hand column, and opposite 4 feet, the length, is 40 : 1 : 4, which write down, and at the bottom of the table opposite $\frac{1}{2}$ a foot, the length, is 5 : 0 : 2, add these together and they will make 45 feet, 1 inch, and 6 twelfth parts, which is the number of solid feet you are to pay freight for at the price agreed upon.

Note.—When you have any inches in the length less than $\frac{1}{4}$, $\frac{1}{2}$, or $\frac{3}{4}$ of a foot, you are to proceed as in the following example:—

EXAMPLE III.

Let the length of a case, &c., be 62 inches (which is equal to 5 feet 2 inches,) and the girt 122 inches ($\frac{1}{4}$ of which is $30\frac{1}{2}$ inches,) I demand how many solid feet the case contains?

At the top of the table find $30\frac{1}{2}$ inches, the side of the square, (equal to $\frac{1}{4}$ of the girt of 122 inches), then keep your eye down the left-hand column, and opposite 5 feet stands FT. I. P. —which write down. Then $32\ 3\ 7$ for the 2 inches—I consider $1\ 0\ 8$ that 2 inches is two-thirds of 1 quarter of a foot, and at $34\ 0\ 3$ the bottom of the table I find, opposite $\frac{1}{4}$ of a foot, 1 foot, 7 inches, 4 twelfth parts, and 6 seconds (but the twelfth parts and seconds may be rejected.) Now two-thirds of a foot is 8 inches, and two-thirds of 7 inches, is 4 inches and two-thirds, which must be wrote down also; and by adding them together you will find they make 34 feet, 0 ins., and 3 twelfth parts, being the number of solid feet you are to pay freight for at the price agreed upon.

Note.—When Cases taper, and are smaller at one end than the other, to reduce them to a square you must girt them in the middle from each end. Or you may find $\frac{1}{4}$ of the girt at each end, add them together, take a half of it for the side of the square, and work as the foregoing example.

OF BALES, TRUSSES, &C.

The solid feet in any bale, truss, or bundle, are found by taking their lengths, and reducing them to a square by girting them, as in the three foregoing examples, provided they are as large at one end as the other. But in case they should taper, and be smaller at one end than the other, they are to be girt in the middle from each end, and taking $\frac{1}{4}$ of the girt for the side of the square, proceed to find the solid feet as already taught for cases, and as following for casks.

OF CASKS, FATS OR VATS.

The solid feet in any cask, or fat, are found by taking their length, and reducing them to a square by girting them as cases, bales, &c. provided they are straight-sided; but if they are smaller at the ends than in the middle, then you must girt them at the midway between the middle and end of the staves, and take $\frac{1}{4}$ of the girt of the side for the square. Or you may find $\frac{1}{4}$ of

the girt in the middle, and also at the end, add them together, take half of it for the side of the square, and proceed as in the foregoing example of cases, chests and trunks.

In taking the length of a bulging cask with a line, without some care you may take it too long. For though a straight-sided cask and a bulging cask, when standing on their end, may be of the same height, yet if the length is taken with a line when they are lying, the bulging cask will be apt to measure longer than the straight-sided one, which should be guarded against. And where the hoops rise higher than the middle or bulging part of the cask, the girt ought to be taken over the widest hoop, as it is usual for the measurer to endeavour, to obtain the largest girt.

Some girt the casks in the middle, and abate one-fifth for their tapering.

In taking the length and girt of cases, chests, trunks, &c. when they are strengthened or secured with battens, or where there is any thing that hinders other square goods from lying close by them, that which so hinders them is to be measured in and paid for as if the length and girt had been every where as large as in those particular places, by reason it occasions so much loss in the stowage of the ship.

One of our greatest coppersmiths for making large stills, coppers, boilers, &c. for exportation, informs me that it is usual to ascertain the freight of them by taking the greatest external diameter, even to the outside of the nails, (if a larger external diameter cannot be obtained elsewhere), and then to pay freight as if the still, copper, &c. were a straight-sided square. [See the Frontispiece, fig. 6.] And when this is the case you pay for the white corners, or spaces, &c. of the square, which the still, copper, &c., never occupies any part of. This seems severe, as several things may be stowed in those white corners, or spaces, &c. He also says, the exporter has the liberty of filling the stills, coppers, &c. with corn, or what else he pleases.

A NEW TABLE

OF

SOLID MEASURE,

READY CAST UP:

Whereby the Solid Content, and consequently the Value, of any Piece or Quantity of Timber, Stone, &c. may be found AT SIGHT, from 2 to 54 inches, the side of the Square, (or one-fourth of the Girt) and from one Quarter of a Foot, to 45 Feet, the Length; and therefore, by addition only, may serve to any greater breadth, if there should ever be occasion.

[See this table explained on page 33., &c.]

Feet Long	Side 2 Inches.			Feet Long	Side 2½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	0	0	4	1	0	0	5		
2	0	0	8	2	0	0	10		
3	0	1	0	3	0	1	3		
4	0	1	4	4	0	1	8		
5	0	1	8	5	0	2	1		
6	0	2	0	6	0	2	6		
7	0	2	4	7	0	2	11		
8	0	2	8	8	0	3	4		
9	0	3	0	9	0	3	9		
10	0	3	4	10	0	4	2		
11	0	3	8	11	0	4	7		
12	0	4	0	12	0	5	0		
13	0	4	4	13	0	5	5		
14	0	4	8	14	0	5	10		
15	0	5	0	15	0	6	3		
16	0	5	4	16	0	6	9		
17	0	5	8	17	0	7	2		
18	0	6	0	18	0	7	7		
19	0	6	4	19	0	8	0		
20	0	6	8	20	0	8	5		
21	0	7	0	21	0	8	10		
22	0	7	4	22	0	9	3		
23	0	7	8	23	0	9	8		
24	0	8	0	24	0	10	1		
25	0	8	4	25	0	10	6		
26	0	8	8	26	0	10	11		
27	0	9	0	27	0	11	4		
28	0	9	4	28	0	11	9		
29	0	9	8	29	1	0	2		
30	0	10	0	30	1	0	7		
31	0	10	4	31	1	1	0		
32	0	10	8	32	1	1	6		
33	0	11	0	33	1	1	11		
34	0	11	4	34	1	2	4		
35	0	11	8	35	1	2	9		
36	1	0	0	36	1	3	2		
37	1	0	4	37	1	3	7		
38	1	0	8	38	1	4	0		
39	1	1	0	39	1	4	5		
40	1	1	4	40	1	4	10		
41	1	1	8	41	1	5	3		
42	1	2	0	42	1	5	8		
43	1	2	4	43	1	6	1		
44	1	2	8	44	1	6	6		
45	1	3	0	45	1	6	11		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	0	0	1	0	¼	0	0	1	3
½	0	0	2	0	½	0	0	2	6
¾	0	0	3	0	¾	0	0	3	9

Feet Long	Side 2½ Inches.			Feet Long	Side 2¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	0	0	6	1	0	0	7		
2	0	1	0	2	0	1	3		
3	0	1	6	3	0	1	10		
4	0	2	1	4	0	2	6		
5	0	2	7	5	0	3	1		
6	0	3	1	6	0	3	9		
7	0	3	7	7	0	4	4		
8	0	4	2	8	0	5	0		
9	0	4	8	9	0	5	8		
10	0	5	2	10	0	6	3		
11	0	5	8	11	0	6	11		
12	0	6	3	12	0	7	6		
13	0	6	9	13	0	8	2		
14	0	7	3	14	0	8	9		
15	0	7	9	15	0	9	5		
16	0	8	4	16	0	10	1		
17	0	8	10	17	0	10	8		
18	0	9	4	18	0	11	4		
19	0	9	10	19	0	11	11		
20	0	10	5	20	1	0	7		
21	0	10	11	21	1	1	2		
22	0	11	5	22	1	1	10		
23	0	11	11	23	1	2	5		
24	1	0	6	24	1	3	1		
25	1	1	0	25	1	3	9		
26	1	1	6	26	1	4	4		
27	1	2	0	27	1	5	0		
28	1	2	7	28	1	5	7		
29	1	3	1	29	1	6	3		
30	1	3	7	30	1	6	10		
31	1	4	1	31	1	7	6		
32	1	4	8	32	1	8	2		
33	1	5	2	33	1	8	9		
34	1	5	8	34	1	9	5		
35	1	6	2	35	1	10	0		
36	1	6	9	36	1	10	8		
37	1	7	3	37	1	11	3		
38	1	7	9	38	1	11	10		
39	1	8	3	39	2	0	6		
40	1	8	10	40	2	1	2		
41	1	9	4	41	2	1	10		
42	1	9	10	42	2	2	5		
43	1	10	4	43	2	3	1		
44	1	10	11	44	2	3	8		
45	1	11	5	45	2	4	4		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	0	0	1	6	¼	0	0	1	9
½	0	0	3	0	½	0	0	3	6
¾	0	0	4	6	¾	0	0	5	3

Feet Long	Side 3 Inches.			Feet Long	Side 3½ Inches.		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	0	9	1	0	0	10
2	0	1	6	2	0	1	9
3	0	2	3	3	0	2	7
4	0	3	0	4	0	3	6
5	0	3	9	5	0	4	4
6	0	4	6	6	0	5	3
7	0	5	3	7	0	6	1
8	0	6	0	8	0	7	0
9	0	6	9	9	0	7	11
10	0	7	6	10	0	8	9
11	0	8	3	11	0	9	8
12	0	9	0	12	0	10	6
13	0	9	9	13	0	11	5
14	0	10	6	14	1	0	3
15	0	11	3	15	1	1	2
16	1	0	0	16	1	2	1
17	1	0	9	17	1	2	11
18	1	1	6	18	1	3	10
19	1	2	3	19	1	4	8
20	1	3	0	20	1	5	7
21	1	3	9	21	1	6	5
22	1	4	6	22	1	7	4
23	1	5	3	23	1	8	2
24	1	6	0	24	1	9	1
25	1	6	9	25	1	10	0
26	1	7	6	26	1	10	10
27	1	8	3	27	1	11	9
28	1	9	0	28	2	0	7
29	1	9	9	29	2	1	6
30	1	10	6	30	2	2	4
31	1	11	3	31	2	3	3
32	2	0	0	32	2	4	2
33	2	0	9	33	2	5	0
34	2	1	6	34	2	5	11
35	2	2	3	35	2	6	9
36	2	3	0	36	2	7	8
37	2	3	9	37	2	8	6
38	2	4	6	38	2	9	5
39	2	5	3	39	2	10	3
40	2	6	0	40	2	11	2
41	2	6	9	41	3	0	1
42	2	7	6	42	3	0	11
43	2	8	3	43	3	1	10
44	2	9	0	44	3	2	8
45	2	9	9	45	3	3	7

½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
½	0	0	2	3	½	0	0	2	6
¾	0	0	4	6	¾	0	0	5	0
1	0	0	6	9	1	0	0	7	6

Feet Long	Side 3½ Inches.			Feet Long	Side 3¾ Inches.		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	1	0	1	0	1	2
2	0	2	0	2	0	2	4
3	0	3	0	3	0	3	6
4	0	4	1	4	0	4	8
5	0	5	1	5	0	5	10
6	0	6	1	6	0	7	0
7	0	7	1	7	0	8	2
8	0	8	2	8	0	9	4
9	0	9	2	9	0	10	6
10	0	10	2	10	0	11	8
11	0	11	2	11	1	0	10
12	1	0	3	12	1	2	0
13	1	1	3	13	1	3	2
14	1	2	3	14	1	4	4
15	1	3	3	15	1	5	6
16	1	4	4	16	1	6	9
17	1	5	4	17	1	7	11
18	1	6	4	18	1	9	1
19	1	7	4	19	1	10	3
20	1	8	5	20	1	11	5
21	1	9	5	21	2	0	7
22	1	10	5	22	2	1	9
23	1	11	5	23	2	2	11
24	2	0	6	24	2	4	1
25	2	1	6	25	2	5	3
26	2	2	6	26	2	6	5
27	2	3	6	27	2	7	7
28	2	4	7	28	2	8	9
29	2	5	7	29	2	9	11
30	2	6	7	30	2	11	1
31	2	7	7	31	3	0	3
32	2	8	8	32	3	1	6
33	2	9	8	33	3	2	8
34	2	10	8	34	3	3	10
35	2	11	8	35	3	5	0
36	3	0	9	36	3	6	2
37	3	1	9	37	3	7	4
38	3	2	9	38	3	8	6
39	3	3	9	39	3	9	8
40	3	4	10	40	3	10	10
41	3	5	10	41	4	0	0
42	3	6	10	42	4	1	2
43	3	7	10	43	4	2	4
44	3	8	11	44	4	3	6
45	3	9	11	45	4	4	8

½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
½	0	0	3	0	½	0	0	3	6
¾	0	0	6	0	¾	0	0	7	0
1	0	0	9	0	1	0	0	10	6

Feet Long	Side 4 Inches.			Feet Long	Side 4½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	0	1	4	1	0	1	6		
2	0	2	8	2	0	3	0		
3	0	4	0	3	0	4	6		
4	0	5	4	4	0	6	0		
5	0	6	8	5	0	7	6		
6	0	8	0	6	0	9	0		
7	0	9	4	7	0	10	6		
8	0	10	8	8	1	0	0		
9	1	0	0	9	1	1	6		
10	1	1	4	10	1	3	0		
11	1	2	8	11	1	4	6		
12	1	4	0	12	1	6	0		
13	1	5	4	13	1	7	6		
14	1	6	8	14	1	9	0		
15	1	8	0	15	1	10	6		
16	1	9	4	16	2	0	1		
17	1	10	8	17	2	1	7		
18	2	0	0	18	2	3	1		
19	2	1	4	19	2	4	7		
20	2	2	8	20	2	6	1		
21	2	4	0	21	2	7	7		
22	2	5	4	22	2	9	1		
23	2	6	8	23	2	10	7		
24	2	8	0	24	3	0	1		
25	2	9	4	25	3	1	7		
26	2	10	8	26	3	3	1		
27	3	0	0	27	3	4	7		
28	3	1	4	28	3	6	1		
29	3	2	8	29	3	7	7		
30	3	4	0	30	3	9	1		
31	3	5	4	31	3	10	7		
32	3	6	8	32	4	0	2		
33	3	8	0	33	4	1	8		
34	3	9	4	34	4	3	2		
35	3	10	8	35	4	4	8		
36	4	0	0	36	4	6	2		
37	4	1	4	37	4	7	8		
38	4	2	8	38	4	9	2		
39	4	4	0	39	4	10	8		
40	4	5	4	40	5	0	2		
41	4	6	8	41	5	1	8		
42	4	8	0	42	5	3	2		
43	4	9	4	43	5	4	8		
44	4	10	8	44	5	6	2		
45	5	0	0	45	5	7	8		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	0	0	4	0	¼	0	0	4	6
½	0	0	8	0	½	0	0	9	0
¾	0	1	0	0	¾	0	1	1	6

Feet Long	Side 4½ Inches.			Feet Long	Side 4¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	0	1	8	1	0	1	10		
2	0	3	4	2	0	3	9		
3	0	5	0	3	0	5	7		
4	0	6	9	4	0	7	6		
5	0	8	5	5	0	9	4		
6	0	10	1	6	0	11	3		
7	0	11	9	7	1	1	1		
8	1	1	6	8	1	3	0		
9	1	3	2	9	1	4	11		
10	1	4	10	10	1	6	9		
11	1	6	6	11	1	8	8		
12	1	8	3	12	1	10	6		
13	1	9	11	13	2	0	5		
14	1	11	7	14	2	2	3		
15	2	1	3	15	2	4	2		
16	2	3	0	16	2	6	1		
17	2	4	8	17	2	7	11		
18	2	6	4	18	2	9	10		
19	2	8	0	19	2	11	8		
20	2	9	9	20	3	1	7		
21	2	11	5	21	3	3	5		
22	3	1	1	22	3	5	4		
23	3	2	9	23	3	7	2		
24	3	4	6	24	3	9	1		
25	3	6	2	25	3	11	0		
26	3	7	10	26	4	0	10		
27	3	9	6	27	4	2	9		
28	3	11	3	28	4	4	7		
29	4	0	11	29	4	6	6		
30	4	2	7	30	4	8	4		
31	4	4	3	31	4	10	3		
32	4	6	0	32	5	0	2		
33	4	7	8	33	5	2	0		
34	4	9	4	34	5	3	11		
35	4	11	0	35	5	5	9		
36	5	0	9	36	5	7	8		
37	5	2	5	37	5	9	6		
38	5	4	1	38	5	11	5		
39	5	5	9	39	6	1	3		
40	5	7	6	40	6	3	2		
41	5	9	2	41	6	5	1		
42	5	10	10	42	6	6	11		
43	6	0	6	43	6	8	10		
44	6	2	3	44	6	10	8		
45	6	3	11	45	7	0	7		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	0	0	5	0	¼	0	0	5	6
½	0	0	10	0	½	0	0	11	0
¾	0	1	3	0	¾	0	1	4	6

Feet Long	Side 5 Inches.			Feet Long	Side 5½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	0	2	1	1	0	2	3		
2	0	4	2	2	0	4	7		
3	0	6	3	3	0	6	10		
4	0	8	4	4	0	9	2		
5	0	10	5	5	0	11	5		
6	1	0	6	6	1	1	9		
7	1	2	7	7	1	4	0		
8	1	4	8	8	1	6	4		
9	1	6	9	9	1	8	8		
10	1	8	10	10	1	10	11		
11	1	10	11	11	2	1	3		
12	2	1	0	12	2	3	6		
13	2	3	1	13	2	5	10		
14	2	5	2	14	2	8	1		
15	2	7	3	15	2	10	5		
16	2	9	4	16	3	0	9		
17	2	11	5	17	3	3	0		
18	3	1	6	18	3	5	4		
19	3	3	7	19	3	7	7		
20	3	5	8	20	3	9	11		
21	3	7	9	21	4	0	2		
22	3	9	10	22	4	2	6		
23	3	11	11	23	4	4	9		
24	4	2	0	24	4	7	1		
25	4	4	1	25	4	9	5		
26	4	6	2	26	4	11	8		
27	4	8	3	27	5	2	0		
28	4	10	4	28	5	4	3		
29	5	0	5	29	5	6	7		
30	5	2	6	30	5	8	10		
31	5	4	7	31	5	11	2		
32	5	6	8	32	6	1	6		
33	5	8	9	33	6	3	9		
34	5	10	10	34	6	6	1		
35	6	0	11	35	6	8	4		
36	6	3	0	36	6	10	8		
37	6	5	1	37	7	0	11		
38	6	7	2	38	7	3	3		
39	6	9	3	39	7	5	6		
40	6	11	4	40	7	7	10		
41	7	1	5	41	7	10	2		
42	7	3	6	42	8	0	5		
43	7	5	7	43	8	2	9		
44	7	7	8	44	8	5	0		
45	7	9	9	45	8	7	4		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	0	0	6	3	¼	0	0	6	9
½	0	1	0	6	½	0	1	1	6
¾	0	1	6	9	¾	0	1	8	3

Feet Long	Side 5½ Inches.			Feet Long	Side 5¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	0	2	6	1	0	2	9		
2	0	5	0	2	0	5	6		
3	0	7	6	3	0	8	3		
4	0	10	1	4	0	11	0		
5	1	0	7	5	1	1	9		
6	1	3	1	6	1	4	6		
7	1	5	7	7	1	7	3		
8	1	8	2	8	1	10	0		
9	1	10	8	9	2	0	9		
10	2	1	2	10	2	3	6		
11	2	3	8	11	2	6	3		
12	2	6	3	12	2	9	0		
13	2	8	9	13	2	11	9		
14	2	11	3	14	3	2	6		
15	3	1	9	15	3	5	3		
16	3	4	4	16	3	8	1		
17	3	6	10	17	3	10	10		
18	3	9	4	18	4	1	7		
19	3	11	10	19	4	4	4		
20	4	2	5	20	4	7	1		
21	4	4	11	21	4	9	10		
22	4	7	5	22	5	0	7		
23	4	9	11	23	5	3	4		
24	5	0	6	24	5	6	1		
25	5	3	0	25	5	8	10		
26	5	5	6	26	5	11	7		
27	5	8	0	27	6	2	4		
28	5	10	7	28	6	5	1		
29	6	1	1	29	6	7	10		
30	6	3	7	30	6	10	7		
31	6	6	1	31	7	1	4		
32	6	8	8	32	7	4	2		
33	6	11	2	33	7	6	11		
34	7	1	8	34	7	9	8		
35	7	4	2	35	8	0	5		
36	7	6	9	36	8	3	2		
37	7	9	3	37	8	5	11		
38	7	11	9	38	8	8	8		
39	8	2	3	39	8	11	5		
40	8	4	10	40	9	2	2		
41	8	7	4	41	9	4	11		
42	8	9	10	42	9	7	8		
43	9	0	4	43	9	10	5		
44	9	2	11	44	10	1	2		
45	9	5	5	45	10	3	11		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	0	0	7	6	¼	0	0	8	3
½	0	1	3	0	½	0	1	4	6
¾	0	1	10	6	¾	0	2	0	9

Feet Long	Side 6 Inches.			Feet Long	Side 6½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	0	3	0	1	0	3	3		
2	0	6	0	2	0	6	6		
3	0	9	0	3	0	9	9		
4	1	0	0	4	1	1	0		
5	1	3	0	5	1	4	3		
6	1	6	0	6	1	7	6		
7	1	9	0	7	1	10	9		
8	2	0	0	8	2	2	0		
9	2	3	0	9	2	5	3		
10	2	6	0	10	2	8	6		
11	2	9	0	11	2	11	9		
12	3	0	0	12	3	3	0		
13	3	3	0	13	3	6	3		
14	3	6	0	14	3	9	6		
15	3	9	0	15	4	0	9		
16	4	0	0	16	4	4	1		
17	4	3	0	17	4	7	4		
18	4	6	0	18	4	10	7		
19	4	9	0	19	5	1	10		
20	5	0	0	20	5	5	1		
21	5	3	0	21	5	8	4		
22	5	6	0	22	5	11	7		
23	5	9	0	23	6	2	10		
24	6	0	0	24	6	6	1		
25	6	3	0	25	6	9	4		
26	6	6	0	26	7	0	7		
27	6	9	0	27	7	3	10		
28	7	0	0	28	7	7	1		
29	7	3	0	29	7	10	4		
30	7	6	0	30	8	1	7		
31	7	9	0	31	8	4	10		
32	8	0	0	32	8	8	2		
33	8	3	0	33	8	11	5		
34	8	6	0	34	9	2	8		
35	8	9	0	35	9	5	11		
36	9	0	0	36	9	9	2		
37	9	3	0	37	10	0	5		
38	9	6	0	38	10	3	8		
39	9	9	0	39	10	6	11		
40	10	0	0	40	10	10	2		
41	10	3	0	41	11	1	5		
42	10	6	0	42	11	4	8		
43	10	9	0	43	11	7	11		
44	11	0	0	44	11	11	2		
45	11	3	0	45	12	2	5		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	0	0	9	0	¼	0	0	9	9
½	0	1	6	0	½	0	1	7	6
¾	0	2	3	0	¾	0	2	5	3

Feet Long	Side 6½ Inches.			Feet Long	Side 6¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	0	3	6	1	0	3	9		
2	0	7	0	2	0	7	7		
3	0	10	6	3	0	11	4		
4	1	2	1	4	1	3	2		
5	1	5	7	5	1	6	11		
6	1	9	1	6	1	10	9		
7	2	0	7	7	2	2	6		
8	2	4	2	8	2	6	4		
9	2	7	8	9	2	10	2		
10	2	11	2	10	3	1	11		
11	3	2	8	11	3	5	9		
12	3	6	3	12	3	9	6		
13	3	9	9	13	4	1	4		
14	4	1	3	14	4	5	1		
15	4	4	9	15	4	8	11		
16	4	8	4	16	5	0	9		
17	4	11	10	17	5	4	6		
18	5	3	4	18	5	8	4		
19	5	6	10	19	6	0	1		
20	5	10	5	20	6	3	11		
21	6	1	11	21	6	7	8		
22	6	5	5	22	6	11	6		
23	6	8	11	23	7	3	3		
24	7	0	6	24	7	7	1		
25	7	4	0	25	7	10	11		
26	7	7	6	26	8	2	8		
27	7	11	0	27	8	6	6		
28	8	2	7	28	8	10	3		
29	8	6	1	29	9	2	1		
30	8	9	7	30	9	5	10		
31	9	1	1	31	9	9	8		
32	9	4	8	32	10	1	6		
33	9	8	2	33	10	5	3		
34	9	11	8	34	10	9	1		
35	10	3	2	35	11	0	10		
36	10	6	9	36	11	4	8		
37	10	10	3	37	11	8	5		
38	11	1	9	38	12	0	3		
39	11	5	3	39	12	4	0		
40	11	8	10	40	12	7	10		
41	12	0	4	41	12	11	8		
42	12	3	10	42	13	3	5		
43	12	7	4	43	13	7	3		
44	12	10	11	44	13	11	0		
45	13	2	5	45	14	2	10		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	0	0	10	6	¼	0	0	11	3
½	0	1	9	0	½	0	1	10	6
¾	0	2	7	6	¾	0	2	9	9

Feet Long	Side 7 Inches.			Feet Long	Side 7½ Inches.		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	4	1	1	0	4	4
2	0	8	2	2	0	8	9
3	1	0	3	3	1	1	1
4	1	4	4	4	1	5	6
5	1	8	5	5	1	9	10
6	2	0	6	6	2	2	3
7	2	4	7	7	2	6	7
8	2	8	8	8	2	11	0
9	3	0	9	9	3	3	5
10	3	4	10	10	3	7	9
11	3	8	11	11	4	0	2
12	4	1	0	12	4	4	6
13	4	5	1	13	4	8	11
14	4	9	2	14	5	1	3
15	5	1	3	15	5	5	8
16	5	5	4	16	5	10	1
17	5	9	5	17	6	2	5
18	6	1	6	18	6	6	10
19	6	5	7	19	6	11	2
20	6	9	8	20	7	3	7
21	7	1	9	21	7	7	11
22	7	5	10	22	8	0	4
23	7	9	11	23	8	4	8
24	8	2	0	24	8	9	1
25	8	6	1	25	9	1	6
26	8	10	2	26	9	5	10
27	9	2	3	27	9	10	3
28	9	6	4	28	10	2	7
29	9	10	5	29	10	7	0
30	10	2	6	30	10	11	4
31	10	6	7	31	11	3	9
32	10	10	8	32	11	8	2
33	11	2	9	33	12	0	6
34	11	6	10	34	12	4	11
35	11	10	11	35	12	9	3
36	12	3	0	36	13	1	8
37	12	7	1	37	13	6	0
38	12	11	2	38	13	10	5
39	13	3	3	39	14	2	9
40	13	7	4	40	14	7	2
41	13	11	5	41	14	11	7
42	14	3	6	42	15	3	11
43	14	7	7	43	15	8	4
44	14	11	8	44	16	0	8
45	15	3	9	45	16	5	1

½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	0	1	0	3	¼	0	1	1	0
½	0	2	0	6	½	0	2	2	0
¾	0	3	0	9	¾	0	3	3	0

Feet Long	Side 7½ Inches.			Feet Long	Side 7¾ Inches.		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	4	8	1	0	5	0
2	0	9	4	2	0	10	0
3	1	2	0	3	1	3	0
4	1	6	9	4	1	8	0
5	1	11	5	5	2	1	0
6	2	4	1	6	2	6	0
7	2	8	9	7	2	11	0
8	3	1	6	8	3	4	0
9	3	6	2	9	3	9	0
10	3	10	10	10	4	2	0
11	4	3	6	11	4	7	0
12	4	8	3	12	5	0	0
13	5	0	11	13	5	5	0
14	5	5	7	14	5	10	0
15	5	10	3	15	6	3	0
16	6	3	0	16	6	8	1
17	6	7	8	17	7	1	1
18	7	0	4	18	7	6	1
19	7	5	0	19	7	11	1
20	7	9	9	20	8	4	1
21	8	2	5	21	8	9	1
22	8	7	1	22	9	2	1
23	8	11	9	23	9	7	1
24	9	4	6	24	10	0	1
25	9	9	2	25	10	5	1
26	10	1	10	26	10	10	1
27	10	6	6	27	11	3	1
28	10	11	3	28	11	8	1
29	11	3	11	29	12	1	1
30	11	8	7	30	12	6	1
31	12	1	3	31	12	11	1
32	12	6	0	32	13	4	2
33	12	10	8	33	13	9	2
34	13	3	4	34	14	2	2
35	13	8	0	35	14	7	2
36	14	0	9	36	15	0	2
37	14	5	5	37	15	5	2
38	14	10	1	38	15	10	2
39	15	2	9	39	16	3	2
40	15	7	6	40	16	8	2
41	16	0	2	41	17	1	2
42	16	4	10	42	17	6	2
43	16	9	6	43	17	11	2
44	17	2	3	44	18	4	2
45	17	6	11	45	18	9	2

½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	0	1	2	0	¼	0	1	3	0
½	0	2	4	0	½	0	2	6	0
¾	0	3	6	0	¾	0	3	9	0

Feet Long	Side 8 Inches.			Feet Long	Side 8½ Inches.		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	5	4	1	0	5	8
2	0	10	8	2	0	11	4
3	1	4	0	3	1	5	0
4	1	9	4	4	1	10	8
5	2	2	8	5	2	4	4
6	2	8	0	6	2	10	0
7	3	1	4	7	3	3	8
8	3	6	8	8	3	9	4
9	4	0	0	9	4	3	0
10	4	5	4	10	4	8	8
11	4	10	8	11	5	2	4
12	5	4	0	12	5	8	0
13	5	9	4	13	6	1	8
14	6	2	8	14	6	7	4
15	6	8	0	15	7	1	0
16	7	1	4	16	7	6	9
17	7	6	8	17	8	0	5
18	8	0	0	18	8	6	1
19	8	5	4	19	8	11	9
20	8	10	8	20	9	5	5
21	9	4	0	21	9	11	1
22	9	9	4	22	10	4	9
23	10	2	8	23	10	10	5
24	10	8	0	24	11	4	1
25	11	1	4	25	11	9	9
26	11	6	8	26	12	3	5
27	12	0	0	27	12	9	1
28	12	5	4	28	13	2	9
29	12	10	8	29	13	8	5
30	13	4	0	30	14	2	1
31	13	9	4	31	14	7	9
32	14	2	8	32	15	1	6
33	14	8	0	33	15	7	2
34	15	1	4	34	16	0	10
35	15	6	8	35	16	6	6
36	16	0	0	36	17	0	2
37	16	5	4	37	17	5	10
38	16	10	8	38	17	11	6
39	17	4	0	39	18	5	2
40	17	9	4	40	18	10	10
41	18	2	8	41	19	4	6
42	18	8	0	42	19	10	2
43	19	1	4	43	20	3	10
44	19	6	8	44	20	9	6
45	20	0	0	45	21	3	2

¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	0	1	4	0	¼	0	1	5	0
½	0	2	8	0	½	0	2	10	0
¾	0	4	0	0	¾	0	4	3	0

Feet Long	Side 8½ Inches.			Feet Long	Side 8¾ Inches.		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	6	0	1	0	6	4
2	1	0	0	2	1	0	9
3	1	6	0	3	1	7	1
4	2	0	1	4	2	1	6
5	2	6	1	5	2	7	10
6	3	0	1	6	3	2	3
7	3	6	1	7	3	8	7
8	4	0	2	8	4	3	0
9	4	6	2	9	4	9	5
10	5	0	2	10	5	3	9
11	5	6	2	11	5	10	2
12	6	0	3	12	6	4	6
13	6	6	3	13	6	10	11
14	7	0	3	14	7	5	3
15	7	6	3	15	7	11	8
16	8	0	4	16	8	6	1
17	8	6	4	17	9	0	5
18	9	0	4	18	9	6	10
19	9	6	4	19	10	1	2
20	10	0	5	20	10	7	7
21	10	6	5	21	11	1	11
22	11	0	5	22	11	8	4
23	11	6	5	23	12	2	8
24	12	0	6	24	12	9	1
25	12	6	6	25	13	3	6
26	13	0	6	26	13	9	10
27	13	6	6	27	14	4	3
28	14	0	7	28	14	10	7
29	14	6	7	29	15	5	0
30	15	0	7	30	15	11	4
31	15	6	7	31	16	5	9
32	16	0	8	32	17	0	2
33	16	6	8	33	17	6	6
34	17	0	8	34	18	0	11
35	17	6	8	35	18	7	3
36	18	0	9	36	19	1	8
37	18	6	9	37	19	8	0
38	19	0	9	38	20	2	5
39	19	6	9	39	20	8	9
40	20	0	10	40	21	3	2
41	20	6	10	41	21	9	7
42	21	0	10	42	22	3	11
43	21	6	10	43	22	10	4
44	22	0	11	44	23	4	8
45	22	6	11	45	23	11	1

¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	0	1	6	0	¼	0	1	7	0
½	0	3	0	0	½	0	3	2	0
¾	0	4	6	0	¾	0	4	9	0

Feet Long	Side 9 Inches.			Feet Long	Side 9½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	0	6	9	1	0	7	1		
2	1	1	6	2	1	2	3		
3	1	8	3	3	1	9	4		
4	2	3	0	4	2	4	6		
5	2	9	9	5	2	11	7		
6	3	4	6	6	3	6	9		
7	3	11	3	7	4	1	10		
8	4	6	0	8	4	9	0		
9	5	0	9	9	5	4	2		
10	5	7	6	10	5	11	3		
11	6	2	3	11	6	6	5		
12	6	9	0	12	7	1	6		
13	7	3	9	13	7	8	8		
14	7	10	6	14	8	3	9		
15	8	5	3	15	8	10	11		
16	9	0	0	16	9	6	1		
17	9	6	9	17	10	1	2		
18	10	1	6	18	10	8	4		
19	10	8	3	19	11	3	5		
20	11	3	0	20	11	10	7		
21	11	9	9	21	12	5	8		
22	12	4	6	22	13	0	10		
23	12	11	3	23	13	7	11		
24	13	6	0	24	14	3	1		
25	14	0	9	25	14	10	3		
26	14	7	6	26	15	5	4		
27	15	2	3	27	16	0	6		
28	15	9	0	28	16	7	7		
29	16	3	9	29	17	2	9		
30	16	10	6	30	17	9	10		
31	17	5	3	31	18	5	0		
32	18	0	0	32	19	0	2		
33	18	6	9	33	19	7	3		
34	19	1	6	34	20	2	5		
35	19	8	3	35	20	9	6		
36	20	3	0	36	21	4	8		
37	20	9	9	37	21	11	9		
38	21	4	6	38	22	6	11		
39	21	11	3	39	23	2	0		
40	22	6	0	40	23	9	2		
41	23	0	9	41	24	4	4		
42	23	7	6	42	24	11	5		
43	24	2	3	43	25	6	7		
44	24	9	0	44	26	1	8		
45	25	3	9	45	26	8	10		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	0	1	8	3	¼	0	1	9	3
½	0	3	4	6	½	0	3	6	6
¾	0	5	0	9	¾	0	5	3	9

Feet Long	Side 9½ Inches.			Feet Long	Side 9¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	0	7	6	1	0	7	11		
2	1	3	0	2	1	3	10		
3	1	10	6	3	1	11	9		
4	2	6	1	4	2	7	8		
5	3	1	7	5	3	3	7		
6	3	9	1	6	3	11	6		
7	4	4	7	7	4	7	5		
8	5	0	2	8	5	3	4		
9	5	7	8	9	5	11	3		
10	6	3	2	10	6	7	2		
11	6	10	8	11	7	3	1		
12	7	6	3	12	7	11	0		
13	8	1	9	13	8	6	11		
14	8	9	3	14	9	2	10		
15	9	4	9	15	9	10	9		
16	10	0	4	16	10	6	9		
17	10	7	10	17	11	2	8		
18	11	3	4	18	11	10	7		
19	11	10	10	19	12	6	6		
20	12	6	5	20	13	2	5		
21	13	1	11	21	13	10	4		
22	13	9	5	22	14	6	3		
23	14	4	11	23	15	2	2		
24	15	0	6	24	15	10	1		
25	15	8	0	25	16	6	0		
26	16	3	6	26	17	1	11		
27	16	11	0	27	17	9	10		
28	17	6	7	28	18	5	9		
29	18	2	1	29	19	1	8		
30	18	9	7	30	19	9	7		
31	19	5	1	31	20	5	6		
32	20	0	8	32	21	1	6		
33	20	8	2	33	21	9	5		
34	21	3	8	34	22	5	4		
35	21	11	2	35	23	1	3		
36	22	6	9	36	23	9	2		
37	23	2	3	37	24	5	1		
38	23	9	9	38	25	1	0		
39	24	5	3	39	25	8	11		
40	25	0	10	40	26	4	10		
41	25	8	4	41	27	0	9		
42	26	3	10	42	27	8	8		
43	26	11	4	43	28	4	7		
44	27	6	11	44	29	0	6		
45	28	2	5	45	29	8	5		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	0	1	10	6	¼	0	1	11	9
½	0	3	9	0	½	0	3	11	6
¾	0	5	7	6	¾	0	5	11	3

Feet Long	Side 10 Inches.			Feet Long	Side 10½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	0	8	4	1	0	8	9		
2	1	4	8	2	1	5	6		
3	2	1	0	3	2	2	3		
4	2	9	4	4	2	11	0		
5	3	5	8	5	3	7	9		
6	4	2	0	6	4	4	6		
7	4	10	4	7	5	1	3		
8	5	6	8	8	5	10	0		
9	6	3	0	9	6	6	9		
10	6	11	4	10	7	3	6		
11	7	7	8	11	8	0	3		
12	8	4	0	12	8	9	0		
13	9	0	4	13	9	5	9		
14	9	8	8	14	10	2	6		
15	10	5	0	15	10	11	3		
16	11	1	4	16	11	8	1		
17	11	9	8	17	12	4	10		
18	12	6	0	18	13	1	7		
19	13	2	4	19	13	10	4		
20	13	10	8	20	14	7	1		
21	14	7	0	21	15	3	10		
22	15	3	4	22	16	0	7		
23	15	11	8	23	16	9	4		
24	16	8	0	24	17	6	1		
25	17	4	4	25	18	2	10		
26	18	0	8	26	18	11	7		
27	18	9	0	27	19	8	4		
28	19	5	4	28	20	5	1		
29	20	1	8	29	21	1	10		
30	20	10	0	30	21	10	7		
31	21	6	4	31	22	7	4		
32	22	2	8	32	23	4	2		
33	22	11	0	33	24	0	11		
34	23	7	4	34	24	9	8		
35	24	3	8	35	25	6	4		
36	25	0	0	36	26	3	2		
37	25	8	4	37	26	11	11		
38	26	4	8	38	27	9	8		
39	27	1	0	39	28	5	5		
40	27	9	4	40	29	2	2		
41	28	5	8	41	29	10	11		
42	29	2	0	42	30	7	8		
43	29	10	4	43	31	4	5		
44	30	6	8	44	32	1	2		
45	31	3	0	45	32	9	11		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	0	2	1	0	¼	0	2	2	3
½	0	4	2	0	½	0	4	4	6
¾	0	6	3	0	¾	0	6	6	9

Feet Long	Side 10½ Inches.			Feet Long	Side 10¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	0	9	2	1	0	9	7		
2	1	6	4	2	1	7	3		
3	2	3	6	3	2	4	10		
4	3	0	9	4	3	2	6		
5	3	9	11	5	4	0	1		
6	4	7	1	6	4	9	9		
7	5	4	3	7	5	7	4		
8	6	1	6	8	6	5	0		
9	6	10	8	9	7	2	8		
10	7	7	10	10	8	0	3		
11	8	5	0	11	8	9	11		
12	9	2	3	12	9	7	6		
13	9	11	5	13	10	5	2		
14	10	8	7	14	11	2	9		
15	11	5	9	15	12	0	5		
16	12	3	0	16	12	10	1		
17	13	0	2	17	13	7	8		
18	13	9	4	18	14	5	4		
19	14	6	6	19	15	2	11		
20	15	3	9	20	16	0	7		
21	16	0	11	21	16	10	2		
22	16	10	1	22	17	7	10		
23	17	7	3	23	18	5	5		
24	18	4	6	24	19	3	1		
25	19	1	8	25	20	0	9		
26	19	10	10	26	20	10	4		
27	20	8	0	27	21	8	0		
28	21	5	3	28	22	5	7		
29	22	2	5	29	23	3	3		
30	22	11	7	30	24	0	10		
31	23	8	9	31	24	10	6		
32	24	6	0	32	25	8	2		
33	25	3	2	33	26	5	9		
34	26	0	4	34	27	3	5		
35	26	9	6	35	28	1	0		
36	27	6	9	36	28	10	8		
37	28	3	11	37	29	8	3		
38	29	1	1	38	30	5	11		
39	29	10	3	39	31	3	6		
40	30	7	6	40	32	1	2		
41	31	4	8	41	32	10	10		
42	32	1	10	42	33	8	5		
43	32	11	0	43	34	6	1		
44	33	8	3	44	35	3	8		
45	34	5	5	45	36	1	4		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	0	2	3	6	¼	0	2	4	9
½	0	4	7	0	½	0	4	9	6
¾	0	6	10	6	¾	0	7	2	3

Feet Long	Side 11 Inches.			Feet Long	Side 11½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	0	10	1	1	0	10	6		
2	1	8	2	2	1	9	1		
3	2	6	3	3	2	7	7		
4	3	4	4	4	3	6	2		
5	4	2	5	5	4	4	8		
6	5	0	6	6	5	3	3		
7	5	10	7	7	6	1	9		
8	6	8	8	8	7	0	4		
9	7	6	9	9	7	10	11		
10	8	4	10	10	8	9	5		
11	9	2	11	11	9	8	0		
12	10	1	0	12	10	6	6		
13	10	11	1	13	11	5	1		
14	11	9	2	14	12	3	7		
15	12	7	3	15	13	2	2		
16	13	5	4	16	14	0	9		
17	14	3	5	17	14	11	3		
18	15	1	6	18	15	9	10		
19	15	11	7	19	16	8	4		
20	16	9	8	20	17	6	11		
21	17	7	9	21	18	5	5		
22	18	5	10	22	19	4	0		
23	19	3	11	23	20	2	6		
24	20	2	0	24	21	1	1		
25	21	0	1	25	21	11	8		
26	21	10	2	26	22	10	2		
27	22	8	3	27	23	8	9		
28	23	6	4	28	24	7	3		
29	24	4	5	29	25	5	10		
30	25	2	6	30	26	4	4		
31	26	0	7	31	27	2	11		
32	26	10	8	32	28	1	6		
33	27	8	9	33	29	0	0		
34	28	6	10	34	29	10	7		
35	29	4	11	35	30	9	1		
36	30	3	0	36	31	7	8		
37	31	1	1	37	32	6	2		
38	31	11	2	38	33	4	9		
39	32	9	3	39	34	3	3		
40	33	7	4	40	35	1	10		
41	34	5	5	41	36	0	5		
42	35	3	6	42	36	10	11		
43	36	1	7	43	37	9	6		
44	36	11	8	44	38	8	0		
45	37	9	9	45	39	6	7		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	0	2	6	3	¼	0	2	7	6
½	0	5	0	6	½	0	5	3	0
¾	0	7	6	9	¾	0	7	10	6

Feet Long	Side 11½ Inches.			Feet Long	Side 11¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	0	11	0	1	0	11	6		
2	1	10	0	2	1	11	0		
3	2	9	0	3	2	10	6		
4	3	8	1	4	3	10	0		
5	4	7	1	5	4	9	6		
6	5	6	1	6	5	9	0		
7	6	5	1	7	6	8	6		
8	7	4	2	8	7	8	0		
9	8	3	2	9	8	7	6		
10	9	2	2	10	9	7	0		
11	10	1	2	11	10	6	6		
12	11	0	3	12	11	6	0		
13	11	11	3	13	12	5	6		
14	12	10	3	14	13	5	0		
15	13	9	3	15	14	4	6		
16	14	8	4	16	15	4	1		
17	15	7	4	17	16	3	7		
18	16	6	4	18	17	3	1		
19	17	5	4	19	18	2	7		
20	18	4	5	20	19	2	1		
21	19	3	5	21	20	1	7		
22	20	2	5	22	21	1	1		
23	21	1	5	23	22	0	7		
24	22	0	6	24	23	0	1		
25	22	11	6	25	23	11	7		
26	23	10	6	26	24	11	1		
27	24	9	6	27	25	10	7		
28	25	8	7	28	26	10	1		
29	26	7	7	29	27	9	7		
30	27	6	7	30	28	9	1		
31	28	5	7	31	29	8	7		
32	29	4	8	32	30	8	2		
33	30	3	8	33	31	7	8		
34	31	2	8	34	32	7	2		
35	32	1	8	35	33	6	8		
36	33	0	9	36	34	6	2		
37	33	11	9	37	35	5	8		
38	34	10	9	38	36	5	2		
39	35	9	9	39	37	4	8		
40	36	8	10	40	38	4	2		
41	37	7	10	41	39	3	8		
42	38	6	10	42	40	3	2		
43	39	5	10	43	41	2	8		
44	40	4	11	44	42	2	2		
45	41	3	11	45	43	1	8		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	0	2	9	0	¼	0	2	10	6
½	0	5	6	0	½	0	5	9	0
¾	0	8	3	0	¾	0	8	7	6

Feet Long	Side 12 Inches.			Feet Long	Side 12½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	1	0	0	1	1	0	6		
2	2	0	0	2	2	1	0		
3	3	0	0	3	3	1	6		
4	4	0	0	4	4	2	0		
5	5	0	0	5	5	2	6		
6	6	0	0	6	6	3	0		
7	7	0	0	7	7	3	6		
8	8	0	0	8	8	4	0		
9	9	0	0	9	9	4	6		
10	10	0	0	10	10	5	0		
11	11	0	0	11	11	5	6		
12	12	0	0	12	12	6	0		
13	13	0	0	13	13	6	6		
14	14	0	0	14	14	7	0		
15	15	0	0	15	15	7	6		
16	16	0	0	16	16	8	1		
17	17	0	0	17	17	8	7		
18	18	0	0	18	18	9	1		
19	19	0	0	19	19	9	7		
20	20	0	0	20	20	10	1		
21	21	0	0	21	21	10	7		
22	22	0	0	22	22	11	1		
23	23	0	0	23	23	11	7		
24	24	0	0	24	25	0	1		
25	25	0	0	25	26	0	7		
26	26	0	0	26	27	1	1		
27	27	0	0	27	28	1	7		
28	28	0	0	28	29	2	1		
29	29	0	0	29	30	2	7		
30	30	0	0	30	31	3	1		
31	31	0	0	31	32	3	8		
32	32	0	0	32	33	4	2		
33	33	0	0	33	34	4	8		
34	34	0	0	34	35	5	2		
35	35	0	0	35	35	5	8		
36	36	0	0	36	37	6	2		
37	37	0	0	37	38	6	8		
38	38	0	0	38	39	7	2		
39	39	0	0	39	40	7	8		
40	40	0	0	40	41	8	2		
41	41	0	0	41	42	8	8		
42	42	0	0	42	43	9	2		
43	43	0	0	43	44	9	8		
44	44	0	0	44	45	10	2		
45	45	0	0	45	46	10	8		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	0	3	0	0	¼	0	3	1	6
½	0	6	0	0	½	0	6	3	0
¾	0	9	0	0	¾	0	9	4	6

Feet Long	Side 12½ Inches.			Feet Long	Side 12¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	1	1	0	1	1	1	6		
2	2	2	0	2	2	3	1		
3	3	3	0	3	3	4	7		
4	4	4	1	4	4	6	2		
5	5	5	1	5	5	7	8		
6	6	6	1	6	6	9	3		
7	7	7	1	7	7	10	9		
8	8	8	2	8	9	0	4		
9	9	9	2	9	10	1	11		
10	10	10	2	10	11	3	5		
11	11	11	2	11	12	5	0		
12	13	0	3	12	13	6	6		
13	14	1	3	13	14	8	1		
14	15	2	3	14	15	9	7		
15	16	3	3	15	16	11	2		
16	17	4	4	16	18	0	9		
17	18	5	4	17	19	2	3		
18	19	6	4	18	20	3	10		
19	20	7	4	19	21	5	4		
20	21	8	5	20	22	6	11		
21	22	9	5	21	23	8	5		
22	23	10	5	22	24	10	0		
23	24	11	5	23	25	11	6		
24	26	0	6	24	27	1	1		
25	27	1	6	25	28	2	8		
26	28	2	6	26	29	4	2		
27	29	3	6	27	30	5	9		
28	30	4	7	28	31	7	3		
29	31	5	7	29	32	8	10		
30	32	6	7	30	33	10	4		
31	33	7	7	31	34	11	11		
32	34	8	8	32	36	1	6		
33	35	9	8	33	37	3	0		
34	36	10	8	34	38	4	7		
35	37	11	8	35	39	6	1		
36	39	0	9	36	40	7	8		
37	40	1	9	37	41	9	2		
38	41	2	9	38	42	10	9		
39	42	3	9	39	44	0	3		
40	43	4	10	40	45	1	10		
41	44	5	10	41	46	3	5		
42	45	6	10	42	47	4	11		
43	46	7	10	43	48	6	6		
44	47	8	11	44	49	8	0		
45	48	9	11	45	50	9	7		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	0	3	3	0	¼	0	3	4	6
½	0	6	6	0	½	0	6	9	0
¾	0	9	9	0	¾	0	10	1	6

Feet Long	Side 13 Inches.			Feet Long	Side 13½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	1	2	1	1	1	2	7		
2	2	4	2	2	2	5	3		
3	3	6	3	3	3	7	10		
4	4	8	4	4	4	10	6		
5	5	10	5	5	6	1	1		
6	7	0	6	6	7	3	9		
7	8	2	7	7	8	6	4		
8	9	4	8	8	9	9	0		
9	10	6	9	9	10	11	8		
10	11	8	10	10	12	2	3		
11	12	10	11	11	13	4	11		
12	14	1	0	12	14	7	6		
13	15	3	1	13	15	10	2		
14	16	5	2	14	17	0	9		
15	17	7	3	15	18	3	5		
16	18	9	4	16	19	6	1		
17	19	11	5	17	20	8	8		
18	21	1	6	18	21	11	4		
19	22	3	7	19	23	1	11		
20	23	5	8	20	24	4	7		
21	24	7	9	21	25	7	2		
22	25	9	10	22	26	9	10		
23	26	11	11	23	28	0	5		
24	28	2	0	24	29	3	1		
25	29	4	1	25	30	5	9		
26	30	6	2	26	31	8	4		
27	31	8	3	27	32	11	0		
28	32	10	4	28	34	1	7		
29	34	0	5	29	35	4	3		
30	35	2	6	30	36	6	10		
31	36	4	7	31	37	9	6		
32	37	6	8	32	39	0	2		
33	38	8	9	33	40	2	9		
34	39	10	10	34	41	5	5		
35	41	0	11	35	42	8	0		
36	42	3	0	36	43	10	8		
37	43	5	1	37	45	1	3		
38	44	7	2	38	46	3	11		
39	45	9	3	39	47	6	6		
40	46	11	4	40	48	9	2		
41	48	1	5	41	49	11	10		
42	49	3	6	42	51	2	5		
43	50	5	7	43	52	5	1		
44	51	7	8	44	53	7	8		
45	52	9	9	45	54	10	4		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	0	3	6	3	¼	0	3	7	9
½	0	7	0	6	½	0	7	3	6
¾	0	10	6	9	¾	0	10	11	3

Feet Long	Side 13½ Inches.			Feet Long	Side 13¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	1	3	2	1	1	3	9		
2	2	6	4	2	2	7	6		
3	3	9	6	3	3	11	3		
4	5	0	9	4	5	3	0		
5	6	3	11	5	6	6	9		
6	7	7	1	6	7	10	6		
7	8	10	3	7	9	2	3		
8	10	1	6	8	10	6	0		
9	11	4	8	9	11	9	9		
10	12	7	10	10	13	1	6		
11	13	11	0	11	14	5	3		
12	15	2	3	12	15	9	0		
13	16	5	5	13	17	0	9		
14	17	8	7	14	18	4	6		
15	18	11	9	15	19	8	3		
16	20	3	0	16	21	0	1		
17	21	6	2	17	22	3	10		
18	22	9	4	18	23	7	7		
19	24	0	6	19	24	11	4		
20	25	3	9	20	26	3	1		
21	26	6	11	21	27	6	10		
22	27	10	1	22	28	10	7		
23	29	1	3	23	30	2	4		
24	30	4	6	24	31	6	1		
25	31	7	8	25	32	9	10		
26	32	10	10	26	34	1	7		
27	34	2	0	27	35	5	4		
28	35	5	3	28	36	9	1		
29	36	8	5	29	38	0	10		
30	37	11	7	30	39	4	7		
31	39	2	9	31	40	8	4		
32	40	6	0	32	42	0	2		
33	41	9	2	33	43	3	11		
34	43	0	4	34	44	7	8		
35	44	3	6	35	45	11	5		
36	45	6	9	36	47	3	2		
37	46	9	11	37	48	6	11		
38	48	1	1	38	49	10	8		
39	49	4	3	39	51	2	5		
40	50	7	6	40	52	6	2		
41	51	10	8	41	53	9	11		
42	53	1	10	42	55	1	8		
43	54	5	0	43	56	5	5		
44	55	8	3	44	57	9	2		
45	56	11	5	45	59	0	11		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	0	3	9	6	¼	0	3	11	3
½	0	7	7	0	½	0	7	10	6
¾	0	11	4	6	¾	0	11	9	9

Feet Long	Side 14 Inches.			Feet Long	Side 14½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	1	4	4	1	1	4	11		
2	2	8	8	2	2	9	10		
3	4	1	0	3	4	2	9		
4	5	5	4	4	5	7	8		
5	6	9	8	5	7	0	7		
6	8	2	0	6	8	5	6		
7	9	6	4	7	9	10	5		
8	10	10	8	8	11	3	4		
9	12	3	0	9	12	8	3		
10	13	7	4	10	14	1	2		
11	14	11	8	11	15	6	1		
12	16	4	0	12	16	11	0		
13	17	8	4	13	18	3	11		
14	19	0	8	14	19	8	10		
15	20	5	0	15	21	1	9		
16	21	9	4	16	22	6	9		
17	23	1	8	17	23	11	8		
18	24	6	0	18	25	4	7		
19	25	10	4	19	26	9	6		
20	27	2	8	20	28	2	5		
21	28	7	0	21	29	7	4		
22	29	11	4	22	31	0	3		
23	31	3	8	23	32	5	2		
24	32	8	0	24	33	10	1		
25	34	0	4	25	35	3	0		
26	35	4	8	26	36	7	11		
27	36	9	0	27	38	0	10		
28	38	1	4	28	39	5	9		
29	39	5	8	29	40	10	8		
30	40	10	0	30	42	3	7		
31	42	2	4	31	43	8	6		
32	43	6	8	32	45	1	6		
33	44	11	0	33	46	6	5		
34	46	3	4	34	47	11	4		
35	47	7	8	35	49	4	3		
36	49	0	0	36	50	9	2		
37	50	4	4	37	52	2	1		
38	51	8	8	38	53	7	0		
39	53	1	0	39	54	11	11		
40	54	5	4	40	56	4	10		
41	55	9	8	41	57	9	9		
42	57	2	0	42	59	2	8		
43	58	6	4	43	60	7	7		
44	59	10	8	44	62	0	6		
45	61	3	0	45	63	5	5		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	0	4	1	0	¼	0	4	2	9
½	0	8	2	0	½	0	8	5	6
¾	1	0	3	0	¾	1	0	8	3

Feet Long	Side 14½ Inches.			Feet Long	Side 14¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	1	5	6	1	1	6	1		
2	2	11	0	2	3	0	3		
3	4	4	6	3	4	6	4		
4	5	10	1	4	6	0	6		
5	7	3	7	5	7	6	7		
6	8	9	1	6	9	0	9		
7	10	2	7	7	10	6	10		
8	11	8	2	8	12	1	0		
9	13	1	8	9	13	7	2		
10	14	7	2	10	15	1	3		
11	16	0	8	11	16	7	5		
12	17	6	3	12	18	1	6		
13	18	11	9	13	19	7	8		
14	20	5	3	14	21	1	9		
15	21	10	9	15	22	7	11		
16	23	4	4	16	24	2	1		
17	24	9	10	17	25	8	2		
18	26	3	4	18	27	2	4		
19	27	8	10	19	28	8	5		
20	29	2	5	20	30	2	7		
21	30	7	11	21	31	8	8		
22	32	1	5	22	33	2	10		
23	33	6	11	23	34	8	11		
24	35	0	6	24	36	3	1		
25	36	6	0	25	37	9	3		
26	37	11	6	26	39	3	4		
27	39	5	0	27	40	9	6		
28	40	10	7	28	42	3	7		
29	42	4	1	29	43	9	9		
30	43	9	7	30	45	3	10		
31	45	3	1	31	46	10	0		
32	46	8	8	32	48	4	2		
33	48	2	2	33	49	10	3		
34	49	7	8	34	51	4	5		
35	51	1	2	35	52	10	6		
36	52	6	9	36	54	4	8		
37	54	0	3	37	55	10	9		
38	55	5	9	38	57	4	11		
39	56	11	3	39	58	11	0		
40	58	4	10	40	60	5	2		
41	59	10	4	41	61	11	4		
42	61	3	10	42	63	5	5		
43	62	9	4	43	64	11	7		
44	64	2	11	44	66	5	8		
45	65	8	5	45	67	11	10		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	0	4	4	6	¼	0	4	6	3
½	0	8	9	0	½	0	9	0	6
¾	1	1	1	6	¾	1	1	6	9

Feet Long	Side 15 Inches.			Feet Long	Side 15½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	1	6	9	1	1	7	4		
2	3	1	6	2	3	2	9		
3	4	8	3	3	4	10	1		
4	6	3	0	4	6	5	6		
5	7	9	9	5	8	0	10		
6	9	4	6	6	9	8	3		
7	10	11	3	7	11	3	7		
8	12	6	0	8	12	11	0		
9	14	0	9	9	14	6	5		
10	15	7	6	10	16	1	9		
11	17	2	3	11	17	9	2		
12	18	9	0	12	19	4	6		
13	20	3	9	13	20	11	11		
14	21	10	6	14	22	7	3		
15	23	5	3	15	24	2	8		
16	25	0	0	16	25	10	1		
17	26	6	9	17	27	5	5		
18	28	1	6	18	29	0	10		
19	29	8	3	19	30	8	2		
20	31	3	0	20	32	3	7		
21	32	9	9	21	33	10	11		
22	34	4	6	22	35	6	4		
23	35	11	3	23	37	1	8		
24	37	6	0	24	38	9	1		
25	39	0	9	25	40	4	6		
26	40	7	6	26	41	11	10		
27	42	2	3	27	43	7	3		
28	43	9	0	28	45	2	7		
29	45	3	9	29	46	10	0		
30	46	10	6	30	48	5	4		
31	48	5	3	31	50	0	9		
32	50	0	0	32	51	8	2		
33	51	6	9	33	53	3	6		
34	53	1	6	34	54	10	11		
35	54	8	3	35	56	6	3		
36	56	3	0	36	58	1	8		
37	57	9	9	37	59	9	0		
38	59	4	6	38	61	4	5		
39	60	11	3	39	62	11	9		
40	62	6	0	40	64	7	2		
41	64	0	9	41	66	2	7		
42	65	7	6	42	67	9	11		
43	67	2	3	43	69	5	4		
44	68	9	0	44	71	0	8		
45	70	3	9	45	72	8	1		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	0	4	8	3	¼	0	4	10	0
½	0	9	4	6	½	0	9	8	0
¾	1	2	0	9	¾	1	2	6	0

Feet Long	Side 15½ Inches.			Feet Long	Side 15¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	1	8	0	1	1	8	8		
2	3	4	0	2	3	5	4		
3	5	0	0	3	5	2	0		
4	6	8	1	4	6	10	8		
5	8	4	1	5	8	7	4		
6	10	0	1	6	10	4	0		
7	11	8	1	7	12	0	8		
8	13	4	2	8	13	9	4		
9	15	0	2	9	15	6	0		
10	16	8	2	10	17	2	8		
11	18	4	2	11	18	11	4		
12	20	0	3	12	20	8	0		
13	21	8	3	13	22	4	8		
14	23	4	3	14	24	1	4		
15	25	0	3	15	25	10	0		
16	26	8	4	16	27	6	9		
17	28	4	4	17	29	3	5		
18	30	0	4	18	31	0	1		
19	31	8	4	19	32	8	9		
20	33	4	5	20	34	5	5		
21	35	0	5	21	36	2	1		
22	36	8	5	22	37	10	9		
23	38	4	5	23	39	7	5		
24	40	0	6	24	41	4	1		
25	41	8	6	25	43	0	9		
26	43	4	6	26	44	9	5		
27	45	0	6	27	46	6	1		
28	46	8	7	28	48	2	9		
29	48	4	7	29	49	11	5		
30	50	0	7	30	51	8	1		
31	51	8	7	31	53	4	9		
32	53	4	8	32	55	1	6		
33	55	0	8	33	56	10	2		
34	56	8	8	34	58	6	10		
35	58	4	8	35	60	3	6		
36	60	0	9	36	62	0	2		
37	61	8	9	37	63	8	10		
38	63	4	9	38	65	5	6		
39	65	0	9	39	67	2	2		
40	66	8	10	40	68	10	10		
41	68	4	10	41	70	7	6		
42	70	0	10	42	72	4	2		
43	71	8	10	43	74	0	10		
44	73	4	11	44	75	9	6		
45	75	0	11	45	77	6	2		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	0	5	0	0	¼	0	5	2	0
½	0	10	0	0	½	0	10	4	0
¾	1	3	0	0	¾	1	3	6	0

Feet Long	Side 16 Inches.			Feet Long	Side 16½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	1	9	4	1	1	10	0		
2	3	6	8	2	3	8	0		
3	5	4	0	3	5	6	0		
4	7	1	4	4	7	4	0		
5	8	10	8	5	9	2	0		
6	10	8	0	6	11	0	0		
7	12	5	4	7	12	10	0		
8	14	2	8	8	14	8	0		
9	16	0	0	9	16	6	0		
10	17	9	4	10	18	4	0		
11	19	6	8	11	20	2	0		
12	21	4	0	12	22	0	0		
13	23	1	4	13	23	10	0		
14	24	10	8	14	25	8	0		
15	26	8	0	15	27	6	0		
16	28	5	4	16	29	4	1		
17	30	2	8	17	31	2	1		
18	32	0	0	18	33	0	1		
19	33	9	4	19	34	10	1		
20	35	6	8	20	36	8	1		
21	37	4	0	21	38	6	1		
22	39	1	4	22	40	4	1		
23	40	10	8	23	42	2	1		
24	42	8	0	24	44	0	1		
25	44	5	4	25	45	10	1		
26	46	2	8	26	47	8	1		
27	48	0	0	27	49	6	1		
28	49	9	4	28	51	4	1		
29	51	6	8	29	53	2	1		
30	53	4	0	30	55	0	1		
31	55	1	4	31	56	10	1		
32	56	10	8	32	58	8	2		
33	58	8	0	33	60	6	2		
34	60	5	4	34	62	4	2		
35	62	2	8	35	64	2	2		
36	64	0	0	36	66	0	2		
37	65	9	4	37	67	10	2		
38	67	6	8	38	69	8	2		
39	69	4	0	39	71	6	2		
40	71	1	4	40	73	4	2		
41	72	10	8	41	75	2	2		
42	74	8	0	42	77	0	2		
43	76	5	4	43	78	10	2		
44	78	2	8	44	80	8	2		
45	80	0	0	45	82	6	2		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	0	5	4	0	¼	0	5	6	0
½	0	10	8	0	½	0	11	0	0
¾	1	4	0	0	¾	1	4	6	0

Feet Long	Side 16½ Inches.			Feet Long	Side 16¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	1	10	8	1	1	11	4		
2	3	9	4	2	3	10	9		
3	5	8	0	3	5	10	1		
4	7	6	9	4	7	9	6		
5	9	5	5	5	9	8	10		
6	11	4	1	6	11	8	3		
7	13	2	9	7	13	7	7		
8	15	1	6	8	15	7	0		
9	17	0	2	9	17	6	5		
10	18	10	10	10	19	5	9		
11	20	9	6	11	21	5	2		
12	22	8	3	12	23	4	6		
13	24	6	11	13	25	3	11		
14	26	5	7	14	27	3	3		
15	28	4	3	15	29	2	8		
16	30	3	0	16	31	2	1		
17	32	1	8	17	33	1	5		
18	34	0	4	18	35	0	10		
19	35	11	0	19	37	0	2		
20	37	9	9	20	38	11	7		
21	39	8	5	21	40	10	11		
22	41	7	1	22	42	10	4		
23	43	5	9	23	44	9	8		
24	45	4	6	24	46	9	1		
25	47	3	2	25	48	8	6		
26	49	1	10	26	50	7	10		
27	51	0	6	27	52	7	3		
28	52	11	3	28	54	6	7		
29	54	9	11	29	56	6	0		
30	56	8	7	30	58	5	4		
31	58	7	3	31	60	4	9		
32	60	6	0	32	62	4	2		
33	62	4	8	33	64	3	6		
34	64	3	4	34	66	2	11		
35	66	2	0	35	68	2	3		
36	68	0	9	36	70	1	8		
37	69	11	5	37	72	1	0		
38	71	10	1	38	74	0	5		
39	73	8	9	39	75	11	9		
40	75	7	6	40	77	11	2		
41	77	6	2	41	79	10	7		
42	79	4	10	42	81	9	11		
43	81	3	6	43	83	9	4		
44	83	2	3	44	85	8	8		
45	85	0	11	45	87	8	1		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	0	5	8	0	¼	0	5	10	0
½	0	11	4	0	½	0	11	8	0
¾	1	5	0	0	¾	1	5	6	0

Feet Long	Side 17 Inches.			Feet Long	Side 17½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	2	0	1	1	2	0	9		
2	4	0	2	2	4	1	7		
3	6	0	3	3	6	2	4		
4	8	0	4	4	8	3	2		
5	10	0	5	5	10	3	11		
6	12	0	6	6	12	4	9		
7	14	0	7	7	14	5	6		
8	16	0	8	8	16	6	4		
9	18	0	9	9	18	7	2		
10	20	0	10	10	20	7	11		
11	22	0	11	11	22	8	9		
12	24	1	0	12	24	9	6		
13	26	1	1	13	26	10	4		
14	28	1	2	14	28	11	1		
15	30	1	3	15	30	11	11		
16	32	1	4	16	33	0	9		
17	34	1	5	17	35	1	6		
18	36	1	6	18	37	2	4		
19	38	1	7	19	39	3	1		
20	40	1	8	20	41	3	11		
21	42	1	9	21	43	4	8		
22	44	1	10	22	45	5	6		
23	46	1	11	23	47	6	3		
24	48	2	0	24	49	7	1		
25	50	2	1	25	51	7	11		
26	52	2	2	26	53	8	8		
27	54	2	3	27	55	9	6		
28	56	2	4	28	57	10	3		
29	58	2	5	29	59	11	1		
30	60	2	6	30	61	11	10		
31	62	2	7	31	64	0	8		
32	64	2	8	32	66	1	6		
33	66	2	9	33	68	2	3		
34	68	2	10	34	70	3	1		
35	70	2	11	35	72	3	10		
36	72	3	0	36	74	4	8		
37	74	3	1	37	76	5	5		
38	76	3	2	38	78	6	3		
39	78	3	3	39	80	7	0		
40	80	3	4	40	82	7	10		
41	82	3	5	41	84	8	8		
42	84	3	6	42	86	9	5		
43	86	3	7	43	88	10	3		
44	88	3	8	44	90	11	0		
45	90	3	9	45	92	11	10		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	0	6	0	3	¼	0	6	2	3
½	1	0	0	6	½	1	0	4	6
¾	1	6	0	9	¾	1	6	6	9

Feet Long	Side 17½ Inches.			Feet Long	Side 17¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	2	1	6	1	2	2	3		
2	4	3	0	2	4	4	6		
3	6	4	6	3	6	6	9		
4	8	6	1	4	8	9	0		
5	10	7	7	5	10	11	3		
6	12	9	1	6	13	1	6		
7	14	10	7	7	15	3	9		
8	17	0	2	8	17	6	0		
9	19	1	8	9	19	8	3		
10	21	3	2	10	21	10	6		
11	23	4	8	11	24	0	9		
12	25	6	3	12	26	3	0		
13	27	7	9	13	28	5	3		
14	29	9	3	14	30	7	6		
15	31	10	9	15	32	9	9		
16	34	0	4	16	35	0	1		
17	36	1	10	17	37	2	4		
18	38	3	4	18	39	4	7		
19	40	4	10	19	41	6	10		
20	42	6	5	20	43	9	1		
21	44	7	11	21	45	11	4		
22	46	9	5	22	48	1	7		
23	48	10	11	23	50	3	10		
24	51	0	6	24	52	6	1		
25	53	2	0	25	54	8	4		
26	55	3	6	26	56	10	7		
27	57	5	0	27	59	0	10		
28	59	6	7	28	61	3	1		
29	61	8	1	29	63	5	4		
30	63	9	7	30	65	7	7		
31	65	11	1	31	67	9	10		
32	68	0	8	32	70	0	2		
33	70	2	2	33	72	2	5		
34	72	3	8	34	74	4	8		
35	74	5	2	35	76	6	11		
36	76	6	9	36	78	9	2		
37	78	8	3	37	80	11	5		
38	80	9	9	38	83	1	8		
39	82	11	3	39	85	3	11		
40	85	0	10	40	87	6	2		
41	87	2	4	41	89	8	5		
42	89	3	10	42	91	10	8		
43	91	5	4	43	94	0	11		
44	93	6	11	44	96	3	2		
45	95	8	5	45	98	5	5		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	0	6	4	6	¼	0	6	6	9
½	1	0	9	0	½	1	1	1	6
¾	1	7	1	6	¾	1	7	8	3

Feet Long	Side 18 Inches.			Feet Long	Side 18½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	2	3	0	1	2	3	9		
2	4	6	0	2	4	7	6		
3	6	9	0	3	6	11	3		
4	9	0	0	4	9	3	0		
5	11	3	0	5	11	6	9		
6	13	6	0	6	13	10	6		
7	15	9	0	7	16	2	3		
8	18	0	0	8	18	6	0		
9	20	3	0	9	20	9	9		
10	22	6	0	10	23	1	6		
11	24	9	0	11	25	5	3		
12	27	0	0	12	27	9	0		
13	29	3	0	13	30	0	9		
14	31	6	0	14	32	4	6		
15	33	9	0	15	34	8	3		
16	36	0	0	16	37	0	1		
17	38	3	0	17	39	3	10		
18	40	6	0	18	41	7	7		
19	42	9	0	19	43	11	4		
20	45	0	0	20	46	3	1		
21	47	3	0	21	48	6	10		
22	49	6	0	22	50	10	7		
23	51	9	0	23	53	2	4		
24	54	0	0	24	55	6	1		
25	56	3	0	25	57	9	10		
26	58	6	0	26	60	1	7		
27	60	9	0	27	62	5	4		
28	63	0	0	28	64	9	1		
29	65	3	0	29	67	0	10		
30	67	6	0	30	69	4	7		
31	69	9	0	31	71	8	4		
32	72	0	0	32	74	0	2		
33	74	3	0	33	76	3	11		
34	76	6	0	34	78	7	8		
35	78	9	0	35	80	11	5		
36	81	0	0	36	83	3	2		
37	83	3	0	37	85	6	11		
38	85	6	0	38	87	10	8		
39	87	9	0	39	90	2	5		
40	90	0	0	40	92	6	2		
41	92	3	0	41	94	9	11		
42	94	6	0	42	97	1	8		
43	96	9	0	43	99	5	5		
44	99	0	0	44	101	9	2		
45	101	3	0	45	104	0	11		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	0	6	9	0	¼	0	6	11	3
½	1	1	6	0	½	1	1	10	6
¾	1	8	3	0	¾	1	8	9	9

Feet Long	Side 18½ Inches.			Feet Long	Side 18¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	2	4	6	1	2	5	3		
2	4	9	0	2	4	10	7		
3	7	1	6	3	7	3	10		
4	9	6	1	4	9	9	2		
5	11	10	7	5	12	2	5		
6	14	3	1	6	14	7	9		
7	16	7	7	7	17	1	0		
8	19	0	2	8	19	6	4		
9	21	4	8	9	21	11	8		
10	23	9	2	10	24	4	11		
11	26	1	8	11	26	10	3		
12	28	6	3	12	29	3	6		
13	30	10	9	13	31	8	10		
14	33	3	3	14	34	2	1		
15	35	7	9	15	36	7	5		
16	38	0	4	16	39	0	9		
17	40	4	10	17	41	6	0		
18	42	9	4	18	43	11	4		
19	45	1	10	19	46	4	7		
20	47	6	5	20	48	9	11		
21	49	10	11	21	51	3	2		
22	52	3	5	22	53	8	6		
23	54	7	11	23	56	1	9		
24	57	0	6	24	58	7	1		
25	59	5	0	25	61	0	5		
26	61	9	6	26	63	5	8		
27	64	2	0	27	65	11	0		
28	66	6	7	28	68	4	3		
29	68	11	1	29	70	9	7		
30	71	3	7	30	73	2	10		
31	73	8	1	31	75	8	2		
32	76	0	8	32	78	1	6		
33	78	5	2	33	80	6	9		
34	80	9	8	34	83	0	1		
35	83	2	2	35	85	5	4		
36	85	6	9	36	87	10	8		
37	87	11	3	37	90	3	11		
38	90	3	9	38	92	9	3		
39	92	8	3	39	95	2	6		
40	95	0	10	40	97	7	10		
41	97	5	4	41	100	1	2		
42	99	9	10	42	102	6	5		
43	102	2	4	43	104	11	9		
44	104	6	11	44	107	5	0		
45	106	11	5	45	109	10	4		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	0	7	1	6	¼	0	7	3	9
½	1	2	3	0	½	1	2	7	6
¾	1	9	4	6	¾	1	9	11	3

Feet Long	Side 19 Inches.			Feet Long	Side 19½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	2	6	1	1	2	6	10		
2	5	0	2	2	5	1	9		
3	7	6	3	3	7	8	7		
4	10	0	4	4	10	3	6		
5	12	6	5	5	12	10	4		
6	15	0	6	6	15	5	3		
7	17	6	7	7	18	0	1		
8	20	0	8	8	20	7	0		
9	22	6	9	9	23	1	11		
10	25	0	10	10	25	8	9		
11	27	6	11	11	28	3	8		
12	30	1	0	12	30	10	6		
13	32	7	1	13	33	5	5		
14	35	1	2	14	36	0	3		
15	37	7	3	15	38	7	2		
16	40	1	4	16	41	2	1		
17	42	7	5	17	43	8	11		
18	45	1	6	18	46	3	10		
19	47	7	7	19	48	10	8		
20	50	1	8	20	51	5	7		
21	52	7	9	21	54	0	5		
22	55	1	10	22	56	7	4		
23	57	7	11	23	59	2	2		
24	60	2	0	24	61	9	1		
25	62	8	1	25	64	4	0		
26	65	2	2	26	66	10	10		
27	67	8	3	27	69	5	9		
28	70	2	4	28	72	0	7		
29	72	8	5	29	74	7	6		
30	75	2	6	30	77	2	4		
31	77	8	7	31	79	9	3		
32	80	2	8	32	82	4	2		
33	82	8	9	33	84	11	0		
34	85	2	10	34	87	5	11		
35	87	8	11	35	90	0	9		
36	90	3	0	36	92	7	8		
37	92	9	1	37	95	2	6		
38	95	3	2	38	97	9	5		
39	97	9	3	39	100	4	3		
40	100	3	4	40	102	11	2		
41	102	9	5	41	105	6	1		
42	105	3	6	42	108	0	11		
43	107	9	7	43	110	7	10		
44	110	3	8	44	113	2	8		
45	112	9	9	45	115	9	7		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	0	7	6	3	¼	0	7	8	6
½	1	3	0	6	½	1	3	5	0
¾	1	10	6	9	¾	1	11	1	6

Feet Long	Side 19½ Inches.			Feet Long	Side 19¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	2	7	8	1	2	8	6		
2	5	3	4	2	5	5	0		
3	7	11	0	3	8	1	6		
4	10	6	9	4	10	10	0		
5	13	2	5	5	13	6	6		
6	15	10	1	6	16	3	0		
7	18	5	9	7	18	11	6		
8	21	1	6	8	21	8	0		
9	23	9	2	9	24	4	6		
10	26	4	10	10	27	1	0		
11	29	0	6	11	29	9	6		
12	31	8	3	12	32	6	0		
13	34	3	11	13	35	2	6		
14	36	11	7	14	37	11	0		
15	39	7	3	15	40	7	6		
16	42	3	0	16	43	4	1		
17	44	10	8	17	46	0	7		
18	47	6	4	18	48	9	1		
19	50	2	0	19	51	5	7		
20	52	9	9	20	54	2	1		
21	55	5	5	21	56	10	7		
22	58	1	1	22	59	7	1		
23	60	8	9	23	62	3	7		
24	63	4	6	24	65	0	1		
25	66	0	2	25	67	8	7		
26	68	7	10	26	70	5	1		
27	71	3	6	27	73	1	7		
28	73	11	3	28	75	10	1		
29	76	6	11	29	78	6	7		
30	79	2	7	30	81	3	1		
31	81	10	3	31	83	11	7		
32	84	6	0	32	86	8	2		
33	87	1	8	33	89	4	8		
34	89	9	4	34	92	1	2		
35	92	5	0	35	94	9	8		
36	95	0	9	36	97	6	2		
37	97	8	5	37	100	2	8		
38	100	4	1	38	102	11	2		
39	102	11	9	39	105	7	8		
40	105	7	6	40	108	4	2		
41	108	3	2	41	111	0	8		
42	110	10	10	42	113	9	2		
43	113	6	6	43	116	5	8		
44	116	2	3	44	119	2	2		
45	118	9	11	45	121	10	8		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	0	7	11	0	¼	0	8	1	6
½	1	3	10	0	½	1	4	3	0
¾	1	11	9	0	¾	2	0	4	6

Feet Long	Side 20 Inches.			Feet Long	Side 20½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	2	9	4	1	2	10	2		
2	5	6	8	2	5	8	4		
3	8	4	0	3	8	6	6		
4	11	1	4	4	11	4	8		
5	13	10	8	5	14	2	10		
6	16	8	0	6	17	1	0		
7	19	5	4	7	19	11	2		
8	22	2	8	8	22	9	4		
9	25	0	0	9	25	7	6		
10	27	9	4	10	28	5	8		
11	30	6	8	11	31	3	10		
12	33	4	0	12	34	2	0		
13	36	1	4	13	37	0	2		
14	38	10	8	14	39	10	4		
15	41	8	0	15	42	8	6		
16	44	5	4	16	45	6	9		
17	47	2	8	17	48	4	11		
18	50	0	0	18	51	3	1		
19	52	9	4	19	54	1	3		
20	55	6	8	20	56	11	5		
21	58	4	0	21	59	9	7		
22	61	1	4	22	62	7	9		
23	63	10	8	23	65	5	11		
24	66	8	0	24	68	4	1		
25	69	5	4	25	71	2	3		
26	72	2	8	26	74	0	5		
27	75	0	0	27	76	10	7		
28	77	9	4	28	79	8	9		
29	80	6	8	29	82	6	11		
30	83	4	0	30	85	5	1		
31	86	1	4	31	88	3	3		
32	88	10	8	32	91	1	6		
33	91	8	0	33	93	11	8		
34	94	5	4	34	96	9	10		
35	97	2	8	35	99	8	0		
36	100	0	0	36	102	6	2		
37	102	9	4	37	105	4	4		
38	105	6	8	38	108	2	6		
39	108	4	0	39	111	0	8		
40	111	1	4	40	113	10	10		
41	113	10	8	41	116	9	0		
42	116	8	0	42	119	7	2		
43	119	5	4	43	122	5	4		
44	122	2	8	44	125	3	6		
45	125	0	0	45	128	1	8		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	0	8	4	0	¼	0	8	6	6
½	1	4	8	0	½	1	5	1	0
¾	2	1	0	0	¾	2	1	7	6

Feet Long	Side 20½ Inches.			Feet Long	Side 20¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	2	11	0	1	2	11	10		
2	5	10	0	2	5	11	9		
3	8	9	0	3	8	11	7		
4	11	8	1	4	11	11	6		
5	14	7	1	5	14	11	4		
6	17	6	1	6	17	11	3		
7	20	5	1	7	20	11	1		
8	23	4	2	8	23	11	0		
9	26	3	2	9	26	10	11		
10	29	2	2	10	29	10	9		
11	32	1	2	11	32	10	8		
12	35	0	3	12	35	10	6		
13	37	11	3	13	38	10	5		
14	40	10	3	14	41	10	3		
15	43	9	3	15	44	10	2		
16	46	8	4	16	47	10	1		
17	49	7	4	17	50	9	11		
18	52	6	4	18	53	9	10		
19	55	5	4	19	56	9	8		
20	58	4	5	20	59	9	7		
21	61	3	5	21	62	9	5		
22	64	2	5	22	65	9	4		
23	67	1	5	23	68	9	2		
24	70	0	6	24	71	9	1		
25	72	11	6	25	74	9	0		
26	75	10	6	26	77	8	10		
27	78	9	6	27	80	8	9		
28	81	8	7	28	83	8	7		
29	84	7	7	29	86	8	6		
30	87	6	7	30	89	8	4		
31	90	5	7	31	92	8	3		
32	93	4	8	32	95	8	2		
33	96	3	8	33	98	8	0		
34	99	2	8	34	101	7	11		
35	102	1	8	35	104	7	9		
36	105	0	9	36	107	7	8		
37	107	11	9	37	110	7	6		
38	110	10	9	38	113	7	5		
39	113	9	9	39	116	7	3		
40	116	8	10	40	119	7	2		
41	119	7	10	41	122	7	1		
42	122	6	10	42	125	6	11		
43	125	5	10	43	128	6	10		
44	128	4	11	44	131	6	8		
45	131	3	11	45	134	6	7		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	0	8	9	0	¼	0	8	11	6
½	1	5	6	0	½	1	5	11	0
¾	2	2	3	0	¾	2	2	10	6

Feet Long	Side 21 Inches.			Feet Long	Side 21½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	3	0	9	1	3	1	7		
2	6	1	6	2	6	3	3		
3	9	2	3	3	9	4	10		
4	12	3	0	4	12	6	6		
5	15	3	9	5	15	8	1		
6	18	4	6	6	18	9	9		
7	21	5	3	7	21	11	4		
8	24	6	0	8	25	1	0		
9	27	6	9	9	28	2	8		
10	30	7	6	10	31	4	3		
11	33	8	3	11	34	5	11		
12	36	9	0	12	37	7	6		
13	39	9	9	13	40	9	2		
14	42	10	6	14	43	10	9		
15	45	11	3	15	47	0	5		
16	49	0	0	16	50	2	1		
17	52	0	9	17	53	3	8		
18	55	1	6	18	56	5	4		
19	58	2	3	19	59	6	11		
20	61	3	0	20	62	8	7		
21	64	3	9	21	65	10	2		
22	67	4	6	22	68	11	10		
23	70	5	3	23	72	1	5		
24	73	6	0	24	75	3	1		
25	76	6	9	25	78	4	9		
26	79	7	6	26	81	6	4		
27	82	8	3	27	84	8	0		
28	85	9	0	28	87	9	7		
29	88	9	9	29	90	11	3		
30	91	10	6	30	94	0	10		
31	94	11	3	31	97	2	6		
32	98	0	0	32	100	4	2		
33	101	0	9	33	103	5	9		
34	104	1	6	34	106	7	5		
35	107	2	3	35	109	9	0		
36	110	3	0	36	112	10	8		
37	113	3	9	37	116	0	3		
38	116	4	6	38	119	1	11		
39	119	5	3	39	122	3	6		
40	122	6	0	40	125	5	2		
41	125	6	9	41	128	6	10		
42	128	7	6	42	131	8	5		
43	131	8	3	43	134	10	1		
44	134	9	0	44	137	11	8		
45	137	9	9	45	141	1	4		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	0	9	2	3	¼	0	9	4	9
½	1	6	4	6	½	1	6	9	6
¾	2	3	6	9	¾	2	4	2	3

Feet Long	Side 21½ Inches.			Feet Long	Side 21¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	3	2	6	1	3	3	5		
2	6	5	0	2	6	6	10		
3	9	7	6	3	9	10	3		
4	12	10	1	4	13	1	8		
5	16	0	7	5	16	5	1		
6	19	3	1	6	19	8	6		
7	22	5	7	7	22	11	11		
8	25	8	2	8	26	3	4		
9	28	10	8	9	29	6	9		
10	32	1	2	10	32	10	2		
11	35	3	8	11	36	1	7		
12	38	6	3	12	39	5	0		
13	41	8	9	13	42	8	5		
14	44	11	3	14	45	11	10		
15	48	1	9	15	49	3	3		
16	51	4	4	16	52	6	9		
17	54	6	10	17	55	10	2		
18	57	9	4	18	59	1	7		
19	60	11	10	19	62	5	0		
20	64	2	5	20	65	8	5		
21	67	4	11	21	68	11	10		
22	70	7	5	22	72	3	3		
23	73	9	11	23	75	6	8		
24	77	0	6	24	78	10	1		
25	80	3	0	25	82	1	6		
26	83	5	6	26	85	4	11		
27	86	8	0	27	88	8	4		
28	89	10	7	28	91	11	9		
29	93	1	1	29	95	3	2		
30	96	3	7	30	98	6	7		
31	99	6	1	31	101	10	0		
32	102	8	8	32	105	1	6		
33	105	11	2	33	108	4	11		
34	109	1	8	34	111	8	4		
35	112	4	2	35	114	11	9		
36	115	6	9	36	118	3	2		
37	118	9	3	37	121	6	7		
38	121	11	9	38	124	10	0		
39	125	2	3	39	128	1	5		
40	128	4	10	40	131	4	10		
41	131	7	4	41	134	8	3		
42	134	9	10	42	137	11	8		
43	138	0	4	43	141	3	1		
44	141	2	11	44	144	6	6		
45	144	5	5	45	147	9	11		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	0	9	7	6	¼	0	9	10	3
½	1	7	3	0	½	1	7	8	6
¾	2	4	10	6	¾	2	5	6	9

Feet Long	Side 22 Inches.			Feet Long	Side 22½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	3	4	4	1	3	5	3		
2	6	8	8	2	6	10	6		
3	10	1	0	3	10	3	9		
4	13	5	4	4	13	9	0		
5	16	9	8	5	17	2	3		
6	20	2	0	6	20	7	6		
7	23	6	4	7	24	0	9		
8	26	10	8	8	27	6	0		
9	30	3	0	9	30	11	3		
10	33	7	4	10	34	4	6		
11	36	11	8	11	37	9	9		
12	40	4	0	12	41	3	0		
13	43	8	4	13	44	8	3		
14	47	0	8	14	48	1	6		
15	50	5	0	15	51	6	9		
16	53	9	4	16	55	0	1		
17	57	1	8	17	58	5	4		
18	60	6	0	18	61	10	7		
19	63	10	4	19	65	3	10		
20	67	2	8	20	68	9	1		
21	70	7	0	21	72	2	4		
22	73	11	4	22	75	7	7		
23	77	3	8	23	79	0	10		
24	80	8	0	24	82	6	1		
25	84	0	4	25	85	11	4		
26	87	4	8	26	89	4	7		
27	90	9	0	27	92	9	10		
28	94	1	4	28	96	3	1		
29	97	5	8	29	99	8	4		
30	100	10	0	30	103	1	7		
31	104	2	4	31	106	6	10		
32	107	6	8	32	110	0	2		
33	110	11	0	33	113	5	5		
34	114	3	4	34	116	10	8		
35	117	7	8	35	120	3	11		
36	121	0	0	36	123	9	2		
37	124	4	4	37	127	2	5		
38	127	8	8	38	130	7	8		
39	131	1	0	39	134	0	11		
40	134	5	4	40	137	6	2		
41	137	9	8	41	140	11	5		
42	141	2	0	42	144	4	8		
43	144	6	4	43	147	9	11		
44	147	10	8	44	151	3	2		
45	151	3	0	45	154	8	5		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	0	10	1	0	¼	0	10	3	9
½	1	8	2	0	½	1	8	7	6
¾	2	6	3	0	¾	2	6	11	3

Feet Long	Side 22½ Inches.			Feet Long	Side 22¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	3	6	2	1	3	7	1		
2	7	0	4	2	6	2	3		
3	10	6	6	3	10	9	4		
4	14	0	9	4	14	4	6		
5	17	6	11	5	17	11	7		
6	21	1	1	6	21	6	9		
7	24	7	3	7	25	1	10		
8	28	1	6	8	28	9	0		
9	31	7	8	9	32	4	2		
10	35	1	10	10	35	11	3		
11	38	8	0	11	39	6	5		
12	42	2	3	12	43	1	6		
13	45	8	5	13	46	8	8		
14	49	2	7	14	50	3	9		
15	52	8	9	15	53	10	11		
16	56	3	0	16	57	6	1		
17	59	9	2	17	61	1	2		
18	63	3	4	18	64	8	4		
19	66	9	6	19	68	3	5		
20	70	3	9	20	71	10	7		
21	73	9	11	21	75	5	8		
22	77	4	1	22	79	0	10		
23	80	10	3	23	82	7	11		
24	84	4	6	24	86	3	1		
25	87	10	8	25	89	10	3		
26	91	4	10	26	93	5	4		
27	94	11	0	27	97	0	6		
28	98	5	3	28	100	7	7		
29	101	11	5	29	104	2	9		
30	105	5	7	30	107	9	10		
31	108	11	9	31	111	5	0		
32	112	6	0	32	115	0	2		
33	116	0	2	33	118	7	3		
34	119	6	4	34	122	2	5		
35	123	0	6	35	125	9	6		
36	126	6	9	36	129	4	8		
37	130	0	11	37	132	11	9		
38	133	7	1	38	136	6	11		
39	137	1	3	39	140	2	0		
40	140	7	6	40	143	9	2		
41	144	1	8	41	147	4	4		
42	147	7	10	42	150	11	5		
43	151	2	0	43	154	6	7		
44	154	8	3	44	158	1	8		
45	158	2	5	45	161	8	10		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	0	10	6	6	¼	0	10	9	3
½	1	9	1	0	½	1	9	6	6
¾	2	7	7	6	¾	2	8	3	9

Feet Long	Side 23 Inches.			Feet Long	Side 23½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	3	8	1	1	3	9	0		
2	7	4	2	2	7	6	1		
3	11	0	3	3	11	3	1		
4	14	8	4	4	15	0	2		
5	18	4	5	5	18	9	2		
6	22	0	6	6	22	6	3		
7	25	8	7	7	26	3	3		
8	29	4	8	8	30	0	4		
9	33	0	9	9	33	9	5		
10	36	8	10	10	37	6	5		
11	40	4	11	11	41	3	6		
12	44	1	0	12	45	0	6		
13	47	9	1	13	48	9	7		
14	51	5	2	14	52	6	7		
15	55	1	3	15	56	3	8		
16	58	9	4	16	60	0	9		
17	62	5	5	17	63	9	9		
18	66	1	6	18	67	6	10		
19	69	9	7	19	71	3	10		
20	73	5	8	20	75	0	11		
21	77	1	9	21	78	9	11		
22	80	9	10	22	82	7	0		
23	84	5	11	23	86	4	0		
24	88	2	0	24	90	1	1		
25	91	10	1	25	93	10	2		
26	95	6	2	26	97	7	2		
27	99	2	3	27	101	4	3		
28	102	10	4	28	105	1	3		
29	106	6	5	29	108	10	4		
30	110	2	6	30	112	7	4		
31	113	10	7	31	116	4	5		
32	117	6	8	32	120	1	6		
33	121	2	9	33	123	10	6		
34	124	10	10	34	127	7	7		
35	128	6	11	35	131	4	7		
36	132	3	0	36	135	1	8		
37	135	11	1	37	138	10	8		
38	139	7	2	38	142	7	9		
39	143	3	3	39	146	4	9		
40	146	11	4	40	150	1	10		
41	150	7	5	41	153	10	11		
42	154	3	6	42	157	7	11		
43	157	11	7	43	161	5	0		
44	161	7	8	44	165	2	0		
45	165	3	9	45	168	11	1		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	0	11	0	3	¼	0	11	3	0
½	1	10	0	6	½	1	10	6	0
¾	2	9	0	9	¾	2	9	9	0

Feet Long	Side 23½ Inches.			Feet Long	Side 23¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	3	10	0	1	3	11	0		
2	7	8	0	2	7	10	0		
3	11	6	0	3	11	9	0		
4	15	4	1	4	15	8	0		
5	19	2	1	5	19	7	0		
6	23	0	1	6	23	6	0		
7	26	10	1	7	27	5	0		
8	30	8	2	8	31	4	0		
9	34	6	2	9	35	3	0		
10	38	4	2	10	39	2	0		
11	42	2	2	11	43	1	0		
12	46	0	3	12	47	0	0		
13	49	10	3	13	50	11	0		
14	53	8	3	14	54	10	0		
15	57	6	3	15	58	9	0		
16	61	4	4	16	62	8	1		
17	65	2	4	17	66	7	1		
18	69	0	4	18	70	6	1		
19	72	10	4	19	74	5	1		
20	76	8	5	20	78	4	1		
21	80	6	5	21	82	3	1		
22	84	4	5	22	86	2	1		
23	88	2	5	23	90	1	1		
24	92	0	6	24	94	0	1		
25	95	10	6	25	97	11	1		
26	99	8	6	26	101	10	1		
27	103	6	6	27	105	9	1		
28	107	4	7	28	109	8	1		
29	111	2	7	29	113	7	1		
30	115	0	7	30	117	6	1		
31	118	10	7	31	121	5	1		
32	122	8	8	32	125	4	2		
33	126	6	8	33	129	3	2		
34	130	4	8	34	133	2	2		
35	134	2	8	35	137	1	2		
36	138	0	9	36	141	0	2		
37	141	10	9	37	144	11	2		
38	145	8	9	38	148	10	2		
39	149	6	9	39	152	9	2		
40	153	4	10	40	156	8	2		
41	157	2	10	41	160	7	2		
42	161	0	10	42	164	6	2		
43	164	10	10	43	168	5	2		
44	168	8	11	44	172	4	2		
45	172	6	11	45	176	3	2		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	0	11	6	0	¼	0	11	9	0
½	1	11	0	0	½	1	11	6	0
¾	2	10	6	0	¾	2	11	3	0

Feet Long	Side 24 Inches.			Feet Long	Side 24½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	4	0	0	1	4	1	0		
2	8	0	0	2	8	2	0		
3	12	0	0	3	12	3	0		
4	16	0	0	4	16	4	0		
5	20	0	0	5	20	5	0		
6	24	0	0	6	24	6	0		
7	28	0	0	7	28	7	0		
8	32	0	0	8	32	8	0		
9	36	0	0	9	36	9	0		
10	40	0	0	10	40	10	0		
11	44	0	0	11	44	11	0		
12	48	0	0	12	49	0	0		
13	52	0	0	13	53	1	0		
14	56	0	0	14	57	2	0		
15	60	0	0	15	61	3	0		
16	64	0	0	16	65	4	1		
17	68	0	0	17	69	5	1		
18	72	0	0	18	73	6	1		
19	76	0	0	19	77	7	1		
20	80	0	0	20	81	8	1		
21	84	0	0	21	85	9	1		
22	88	0	0	22	89	10	1		
23	92	0	0	23	93	11	1		
24	96	0	0	24	98	0	1		
25	100	0	0	25	102	1	1		
26	104	0	0	26	106	2	1		
27	108	0	0	27	110	3	1		
28	112	0	0	28	114	4	1		
29	116	0	0	29	118	5	1		
30	120	0	0	30	122	6	1		
31	124	0	0	31	126	7	1		
32	128	0	0	32	130	8	2		
33	132	0	0	33	134	9	2		
34	136	0	0	34	138	10	2		
35	140	0	0	35	142	11	2		
36	144	0	0	36	147	0	2		
37	148	0	0	37	151	1	2		
38	152	0	0	38	155	2	2		
39	156	0	0	39	159	3	2		
40	160	0	0	40	163	4	2		
41	164	0	0	41	167	5	2		
42	168	0	0	42	171	6	2		
43	172	0	0	43	175	7	2		
44	176	0	0	44	179	8	2		
45	180	0	0	45	183	9	2		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	1	0	0	0	¼	1	0	3	0
½	2	0	0	0	½	2	0	6	0
¾	3	0	0	0	¾	3	0	9	0

Feet Long	Side 24½ Inches.			Feet Long	Side 24¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	4	2	0	1	4	3	0		
2	8	4	0	2	8	6	1		
3	12	6	0	3	12	9	1		
4	16	8	1	4	17	0	2		
5	20	10	1	5	21	3	2		
6	25	0	1	6	25	6	3		
7	29	2	1	7	29	9	3		
8	33	4	2	8	34	0	4		
9	37	6	2	9	38	3	5		
10	41	8	2	10	42	6	5		
11	45	10	2	11	46	9	6		
12	50	0	3	12	51	0	6		
13	54	2	3	13	55	3	7		
14	58	4	3	14	59	6	7		
15	62	6	3	15	63	9	8		
16	66	8	4	16	68	0	9		
17	70	10	4	17	72	3	9		
18	75	0	4	18	76	6	10		
19	79	2	4	19	80	9	10		
20	83	4	5	20	85	0	11		
21	87	6	5	21	89	3	11		
22	91	8	5	22	93	7	0		
23	95	10	5	23	97	10	0		
24	100	0	6	24	102	1	1		
25	104	2	6	25	106	4	2		
26	108	4	6	26	110	7	2		
27	112	6	6	27	114	10	3		
28	116	8	7	28	119	1	3		
29	120	10	7	29	123	4	4		
30	125	0	7	30	127	7	4		
31	129	2	7	31	131	10	5		
32	133	4	8	32	136	1	6		
33	137	6	8	33	140	4	6		
34	141	8	8	34	144	7	7		
35	145	10	8	35	148	10	7		
36	150	0	9	36	153	1	8		
37	154	2	9	37	157	4	8		
38	158	4	9	38	161	7	9		
39	162	6	9	39	165	10	9		
40	166	8	10	40	170	1	10		
41	170	10	10	41	174	4	11		
42	175	0	10	42	178	7	11		
43	179	2	10	43	182	11	0		
44	183	4	11	44	187	2	0		
45	187	6	11	45	191	5	1		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	1	0	6	0	¼	1	0	9	0
½	2	1	0	0	½	2	1	6	0
¾	3	1	6	0	¾	3	2	3	0

Feet Long	Side 25 Inches.			Feet Long	Side 25½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	4	4	1	1	4	5	1		
2	8	8	2	2	8	10	3		
3	13	0	3	3	13	3	4		
4	17	4	4	4	17	8	6		
5	21	8	5	5	22	1	7		
6	26	0	6	6	26	6	9		
7	30	4	7	7	30	11	10		
8	34	8	8	8	35	5	0		
9	39	0	9	9	39	10	2		
10	43	4	10	10	44	3	3		
11	47	8	11	11	48	8	5		
12	52	1	0	12	53	1	6		
13	56	5	1	13	57	6	8		
14	60	9	2	14	61	11	9		
15	65	1	3	15	66	4	11		
16	69	5	4	16	70	10	1		
17	73	9	5	17	75	3	2		
18	78	1	6	18	79	8	4		
19	82	5	7	19	84	1	5		
20	86	9	8	20	88	6	7		
21	91	1	9	21	92	11	8		
22	95	5	10	22	97	4	10		
23	99	9	11	23	101	9	11		
24	104	2	0	24	106	3	1		
25	108	6	1	25	110	8	3		
26	112	10	2	26	115	1	4		
27	117	2	3	27	119	6	6		
28	121	6	4	28	123	11	7		
29	125	10	5	29	128	4	9		
30	130	2	6	30	132	9	10		
31	134	6	7	31	137	3	0		
32	138	10	8	32	141	8	2		
33	143	2	9	33	146	1	3		
34	147	6	10	34	150	6	5		
35	151	10	11	35	154	11	6		
36	156	3	0	36	159	4	8		
37	160	7	1	37	163	9	9		
38	164	11	2	38	168	2	11		
39	169	3	3	39	172	8	0		
40	173	7	4	40	177	1	2		
41	177	11	5	41	181	6	4		
42	182	3	6	42	185	11	5		
43	186	7	7	43	190	4	7		
44	190	11	8	44	194	9	8		
45	195	3	9	45	199	2	10		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	1	1	0	3	¼	1	1	3	3
½	2	2	0	6	½	2	2	6	6
¾	3	3	0	9	¾	3	3	9	9

Feet Long	Side 25½ Inches.			Feet Long	Side 25¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	4	6	2	1	4	7	3		
2	9	0	4	2	9	2	6		
3	13	6	6	3	13	9	9		
4	18	0	9	4	18	5	0		
5	22	6	11	5	23	0	3		
6	27	1	1	6	27	7	6		
7	31	7	3	7	32	2	9		
8	36	1	6	8	36	10	0		
9	40	7	8	9	41	5	3		
10	45	1	10	10	46	0	6		
11	49	8	0	11	50	7	9		
12	54	2	3	12	55	3	0		
13	58	8	5	13	59	10	3		
14	63	2	7	14	64	5	6		
15	67	8	9	15	69	0	9		
16	72	3	0	16	73	8	1		
17	76	9	2	17	78	3	4		
18	81	3	4	18	82	10	7		
19	85	9	6	19	87	5	10		
20	90	3	9	20	92	1	1		
21	94	9	11	21	96	8	4		
22	99	4	1	22	101	3	7		
23	103	10	3	23	105	10	10		
24	108	4	6	24	110	6	1		
25	112	10	8	25	115	1	4		
26	117	4	10	26	119	8	7		
27	121	11	0	27	124	3	10		
28	126	5	3	28	128	11	1		
29	130	11	5	29	133	6	4		
30	135	5	7	30	138	1	7		
31	139	11	9	31	142	8	10		
32	144	6	0	32	147	4	2		
33	149	0	2	33	151	11	5		
34	153	6	4	34	156	6	8		
35	158	0	6	35	161	1	11		
36	162	6	9	36	165	9	2		
37	167	0	11	37	170	4	5		
38	171	7	1	38	174	11	8		
39	176	1	3	39	179	6	11		
40	180	7	6	40	184	2	2		
41	185	1	8	41	188	9	5		
42	189	7	10	42	193	4	8		
43	194	2	0	43	197	11	11		
44	198	8	3	44	202	7	2		
45	203	2	5	45	207	2	5		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	1	1	6	6	¼	1	1	9	9
½	2	3	1	0	½	2	3	7	6
¾	3	4	7	6	¾	3	5	5	3

Feet Long	Side 26 Inches.			Feet Long	Side 26½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	4	8	4	1	4	9	5		
2	9	4	8	2	9	6	10		
3	14	1	0	3	14	4	3		
4	18	9	4	4	19	1	8		
5	23	5	8	5	23	11	1		
6	28	2	0	6	28	8	6		
7	32	10	4	7	33	5	11		
8	37	6	8	8	38	3	4		
9	42	3	0	9	43	0	9		
10	46	11	4	10	47	10	2		
11	51	7	8	11	52	7	7		
12	56	4	0	12	57	5	0		
13	61	0	4	13	62	2	5		
14	65	8	8	14	66	11	10		
15	70	5	0	15	71	9	3		
16	75	1	4	16	76	6	9		
17	79	9	8	17	81	4	2		
18	84	6	0	18	86	1	7		
19	89	2	4	19	90	11	0		
20	93	10	8	20	95	8	5		
21	98	7	0	21	100	5	10		
22	103	3	4	22	105	3	3		
23	107	11	8	23	110	0	8		
24	112	8	0	24	114	10	1		
25	117	4	4	25	119	7	6		
26	122	0	8	26	124	4	11		
27	126	9	0	27	129	2	4		
28	131	5	4	28	133	11	9		
29	136	1	8	29	138	9	2		
30	140	10	0	30	143	6	7		
31	145	6	4	31	148	4	0		
32	150	2	8	32	153	1	5		
33	154	11	0	33	157	10	11		
34	159	7	4	34	162	8	4		
35	164	3	8	35	167	5	9		
36	169	0	0	36	172	3	2		
37	173	8	4	37	177	0	7		
38	178	4	8	38	181	10	0		
39	183	1	0	39	186	7	5		
40	187	9	4	40	191	4	10		
41	192	5	8	41	196	2	3		
42	197	2	0	42	200	11	8		
43	201	10	4	43	205	9	1		
44	206	6	8	44	210	6	6		
45	211	3	0	45	215	3	11		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	1	2	1	0	¼	1	2	4	3
½	2	4	2	0	½	2	4	8	6
¾	3	6	3	0	¾	3	7	0	9

Feet Long	Side 26½ Inches.			Feet Long	Side 26¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	4	10	6	1	4	11	7		
2	9	9	0	2	9	11	3		
3	14	7	6	3	14	10	10		
4	19	6	1	4	19	10	6		
5	24	4	7	5	24	10	1		
6	29	3	1	6	29	9	9		
7	34	1	7	7	34	9	4		
8	39	0	2	8	39	9	0		
9	43	10	8	9	44	8	8		
10	48	9	2	10	49	8	3		
11	53	7	8	11	54	7	11		
12	58	6	3	12	59	7	6		
13	63	4	9	13	64	7	2		
14	68	3	3	14	69	6	9		
15	73	1	9	15	74	6	5		
16	78	0	4	16	79	6	1		
17	82	10	10	17	84	5	8		
18	87	9	4	18	89	5	4		
19	92	7	10	19	94	4	11		
20	97	6	5	20	99	4	7		
21	102	4	11	21	104	4	2		
22	107	3	5	22	109	3	10		
23	112	1	11	23	114	3	5		
24	117	0	6	24	119	3	1		
25	121	11	0	25	124	2	9		
26	126	9	6	26	129	2	4		
27	131	8	0	27	134	2	0		
28	136	6	7	28	139	1	7		
29	141	5	1	29	144	1	3		
30	146	3	7	30	149	0	10		
31	151	2	1	31	154	0	6		
32	156	0	8	32	159	0	2		
33	160	11	2	33	163	11	9		
34	165	9	8	34	168	11	5		
35	170	8	2	35	173	11	0		
36	175	6	9	36	178	10	8		
37	180	5	3	37	183	10	3		
38	185	3	9	38	188	9	11		
39	190	2	3	39	193	9	6		
40	195	0	10	40	198	9	2		
41	199	11	4	41	203	8	10		
42	204	9	10	42	208	8	5		
43	209	8	4	43	213	8	1		
44	214	6	11	44	218	7	8		
45	219	5	5	45	223	7	4		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	1	2	7	6	¼	1	2	10	9
½	2	5	3	0	½	2	5	9	6
¾	3	7	10	6	¾	3	8	8	3

Feet Long	Side 27 Inches.			Feet Long	Side 27½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	5	0	9	1	5	1	10		
2	10	1	6	2	10	3	9		
3	15	2	3	3	15	5	7		
4	20	3	0	4	20	7	6		
5	25	3	9	5	25	9	4		
6	30	4	6	6	30	11	3		
7	35	5	3	7	36	1	1		
8	40	6	0	8	41	3	0		
9	45	6	9	9	46	4	11		
10	50	7	6	10	51	6	9		
11	55	8	3	11	56	8	8		
12	60	9	0	12	61	10	6		
13	65	9	9	13	67	0	5		
14	70	10	6	14	72	2	3		
15	75	11	3	15	77	4	2		
16	81	0	0	16	82	6	1		
17	86	0	9	17	87	7	11		
18	91	1	6	18	92	9	10		
19	96	2	3	19	97	11	8		
20	101	3	0	20	103	1	7		
21	106	3	9	21	108	3	5		
22	111	4	6	22	113	5	4		
23	116	5	3	23	118	7	2		
24	121	6	0	24	123	9	1		
25	126	6	9	25	128	11	0		
26	131	7	6	26	134	0	10		
27	136	8	3	27	139	2	9		
28	141	9	0	28	144	4	7		
29	146	9	9	29	149	6	6		
30	151	10	6	30	154	8	4		
31	156	11	3	31	159	10	3		
32	162	0	0	32	165	0	2		
33	167	0	9	33	170	2	0		
34	172	1	6	34	175	3	11		
35	177	2	3	35	180	5	9		
36	182	3	0	36	185	7	8		
37	187	3	9	37	190	9	6		
38	192	4	6	38	195	11	5		
39	197	5	3	39	201	1	3		
40	202	6	0	40	206	3	2		
41	207	6	9	41	211	5	1		
42	212	7	6	42	216	6	11		
43	217	8	3	43	221	8	10		
44	222	9	0	44	226	10	8		
45	227	9	9	45	232	0	7		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	1	3	2	3	¼	1	3	5	6
½	2	6	4	6	½	2	6	11	0
¾	3	9	6	9	¾	3	10	4	6

Feet Long	Side 27½ Inches.			Feet Long	Side 27¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	5	3	0	1	5	4	2		
2	10	6	0	2	10	8	4		
3	15	9	0	3	16	0	6		
4	21	0	1	4	21	4	8		
5	26	3	1	5	26	8	10		
6	31	6	1	6	32	1	0		
7	36	9	1	7	37	5	2		
8	42	0	2	8	42	9	4		
9	47	3	2	9	48	1	6		
10	52	6	2	10	53	5	8		
11	57	9	2	11	58	9	10		
12	63	0	3	12	64	2	0		
13	68	3	3	13	69	6	2		
14	73	6	3	14	74	10	4		
15	78	9	3	15	80	2	6		
16	84	0	4	16	85	6	9		
17	89	3	4	17	90	10	11		
18	94	6	4	18	96	3	1		
19	99	9	4	19	101	7	3		
20	105	0	5	20	106	11	5		
21	110	3	5	21	112	3	7		
22	115	6	5	22	117	7	9		
23	120	9	5	23	122	11	11		
24	126	0	6	24	128	4	1		
25	131	3	6	25	133	8	3		
26	136	6	6	26	139	0	5		
27	141	9	6	27	144	4	7		
28	147	0	7	28	149	8	9		
29	152	3	7	29	155	0	11		
30	157	6	7	30	160	5	1		
31	162	9	7	31	165	9	3		
32	168	0	8	32	171	1	6		
33	173	3	8	33	176	5	8		
34	178	6	8	34	181	9	10		
35	183	9	8	35	187	2	0		
36	189	0	9	36	192	6	2		
37	194	3	9	37	197	10	4		
38	199	6	9	38	203	2	6		
39	204	9	9	39	208	6	8		
40	210	0	10	40	213	10	10		
41	215	3	10	41	219	3	0		
42	220	6	10	42	224	7	2		
43	225	9	10	43	229	11	4		
44	231	0	11	44	235	3	6		
45	236	3	11	45	240	7	8		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	1	3	9	0	¼	1	4	0	6
½	2	7	6	0	½	2	8	1	0
¾	3	11	3	0	¾	4	0	1	6

Feet Long	Side 28 Inches.			Feet Long	Side 28½ Inches.		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	5	5	4	1	5	6	6
2	10	10	8	2	11	1	0
3	16	4	0	3	16	7	6
4	21	9	4	4	22	2	0
5	27	2	8	5	27	8	6
6	32	8	0	6	33	3	0
7	38	1	4	7	38	9	6
8	43	6	8	8	44	4	0
9	49	0	0	9	49	10	6
10	54	5	4	10	55	5	0
11	59	10	8	11	60	11	6
12	65	4	0	12	65	6	0
13	70	9	4	13	72	0	6
14	76	2	8	14	77	7	0
15	81	8	0	15	83	1	6
16	87	1	4	16	88	8	1
17	92	6	8	17	94	2	7
18	98	0	0	18	99	9	1
19	103	5	4	19	105	3	7
20	108	10	8	20	110	10	1
21	114	4	0	21	116	4	7
22	119	9	4	22	121	11	1
23	125	2	8	23	127	5	7
24	130	8	0	24	133	0	1
25	136	1	4	25	138	6	7
26	141	6	8	26	144	1	1
27	147	0	0	27	149	7	7
28	152	5	4	28	155	2	1
29	157	10	8	29	160	8	7
30	163	4	0	30	166	3	1
31	168	9	4	31	171	9	7
32	174	2	8	32	177	4	2
33	179	8	0	33	182	10	8
34	185	1	4	34	188	5	2
35	190	6	8	35	193	11	8
36	196	0	0	36	199	6	2
37	201	5	4	37	205	0	8
38	206	10	8	38	210	7	2
39	212	4	0	39	216	1	8
40	217	9	4	40	221	8	2
41	223	2	8	41	227	2	8
42	228	8	0	42	232	9	2
43	234	1	4	43	238	3	8
44	239	6	8	44	243	10	2
45	245	0	0	45	249	4	8

½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	1	4	4	0	¼	1	4	7	6
½	2	8	8	0	½	2	9	3	0
¾	4	1	0	0	¾	4	1	10	6

Feet Long	Side 28½ Inches.			Feet Long	Side 28¾ Inches.		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	5	7	8	1	5	8	10
2	11	3	4	2	11	5	9
3	16	11	0	3	17	2	7
4	22	6	9	4	22	11	6
5	28	2	5	5	28	8	4
6	33	10	1	6	34	5	3
7	39	5	9	7	40	2	1
8	45	1	6	8	45	11	0
9	50	9	2	9	51	7	11
10	56	4	10	10	57	4	9
11	62	0	6	11	63	1	8
12	67	8	3	12	68	10	6
13	73	3	11	13	74	7	5
14	78	11	7	14	80	4	3
15	84	7	3	15	86	1	2
16	90	3	0	16	91	10	1
17	95	10	8	17	97	6	11
18	101	6	4	18	103	3	10
19	107	2	0	19	109	0	8
20	112	9	9	20	114	9	7
21	118	5	5	21	120	6	5
22	124	1	1	22	126	3	4
23	129	8	9	23	132	0	2
24	135	4	6	24	137	9	1
25	141	0	2	25	143	6	0
26	146	7	10	26	149	2	10
27	152	3	6	27	154	11	9
28	157	11	3	28	160	8	7
29	163	6	11	29	166	5	6
30	169	2	7	30	172	2	4
31	174	10	3	31	177	11	3
32	180	6	0	32	183	8	2
33	186	1	8	33	189	5	0
34	191	9	4	34	195	1	11
35	197	5	0	35	200	10	9
36	203	0	9	36	206	7	8
37	208	8	5	37	212	4	6
38	214	4	1	38	218	1	5
39	219	11	9	39	223	10	3
40	225	7	6	40	229	7	2
41	231	3	2	41	235	4	1
42	236	10	10	42	241	0	11
43	242	6	6	43	246	9	10
44	248	2	3	44	252	6	9
45	253	9	11	45	258	3	0

½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	1	4	11	0	¼	1	5	2	6
½	2	9	10	0	½	2	10	5	0
¾	4	2	9	0	¾	4	3	7	6

Feet Long	Side 29 Inches.			Feet Long	Side 29½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	5	10	1	1	5	11	3		
2	11	8	2	2	11	10	7		
3	17	6	3	3	17	9	10		
4	23	4	4	4	23	9	2		
5	29	2	5	5	29	8	5		
6	35	0	6	6	35	7	9		
7	40	10	7	7	41	7	0		
8	46	8	8	8	47	6	4		
9	52	6	9	9	53	5	8		
10	58	4	10	10	59	4	11		
11	64	2	11	11	65	4	3		
12	70	1	0	12	71	3	6		
13	75	11	1	13	77	2	10		
14	81	9	2	14	83	2	1		
15	87	7	3	15	89	1	5		
16	93	5	4	16	95	0	9		
17	99	3	5	17	101	0	0		
18	105	1	6	18	106	11	4		
19	110	11	7	19	112	10	7		
20	116	9	8	20	118	9	11		
21	122	7	9	21	124	9	2		
22	128	5	10	22	130	8	6		
23	134	3	11	23	136	7	9		
24	140	2	0	24	142	7	1		
25	146	0	1	25	148	6	5		
26	151	10	2	26	154	5	8		
27	157	8	3	27	160	5	0		
28	163	6	4	28	166	4	3		
29	169	4	5	29	172	3	7		
30	175	2	6	30	178	2	10		
31	181	0	7	31	184	2	2		
32	186	10	8	32	190	1	6		
33	192	8	9	33	196	0	9		
34	198	6	10	34	202	0	1		
35	204	4	11	35	207	11	4		
36	210	3	0	36	213	10	8		
37	216	1	1	37	219	9	11		
38	221	11	2	38	225	9	3		
39	227	9	3	39	231	8	6		
40	233	7	4	40	237	7	10		
41	239	5	5	41	243	7	2		
42	245	3	6	42	249	6	5		
43	251	1	7	43	255	5	9		
44	256	11	8	44	261	5	0		
45	262	9	9	45	267	4	4		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	1	5	6	3	¼	1	5	9	9
½	2	11	0	6	½	2	11	7	6
¾	4	4	6	9	¾	4	5	5	3

Feet Long	Side 29½ Inches.			Feet Long	Side 29¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	6	0	6	1	6	1	9		
2	12	1	0	2	12	3	6		
3	18	1	6	3	18	5	3		
4	24	2	1	4	24	7	0		
5	30	2	7	5	30	8	9		
6	36	3	1	6	36	10	6		
7	42	3	7	7	43	0	3		
8	48	4	2	8	49	2	0		
9	54	4	8	9	55	3	9		
10	60	5	2	10	61	5	6		
11	66	5	8	11	67	7	3		
12	72	6	3	12	73	9	0		
13	78	6	9	13	79	10	9		
14	84	7	3	14	86	0	6		
15	90	7	9	15	92	2	3		
16	96	8	4	16	98	4	1		
17	102	8	10	17	104	5	10		
18	108	9	4	18	110	7	7		
19	114	9	10	19	116	9	4		
20	120	10	5	20	122	11	1		
21	126	10	11	21	129	0	10		
22	132	11	5	22	135	2	7		
23	138	11	11	23	141	4	4		
24	145	0	6	24	147	6	1		
25	151	1	0	25	153	7	10		
26	157	1	6	26	159	9	7		
27	163	2	0	27	165	11	4		
28	169	2	7	28	172	1	1		
29	175	3	1	29	178	2	10		
30	181	3	7	30	184	4	7		
31	187	4	1	31	190	6	4		
32	193	4	8	32	196	8	2		
33	199	5	2	33	202	9	11		
34	205	5	8	34	208	11	8		
35	211	6	2	35	215	1	5		
36	217	6	9	36	221	3	2		
37	223	7	3	37	227	4	11		
38	229	7	9	38	233	6	8		
39	235	8	3	39	239	8	5		
40	241	8	10	40	245	10	2		
41	247	9	4	41	251	11	11		
42	253	9	10	42	258	1	8		
43	259	10	4	43	264	3	5		
44	265	10	11	44	270	5	2		
45	271	11	5	45	276	6	11		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	1	6	1	6	¼	1	6	5	3
½	3	0	3	0	½	3	0	10	6
¾	4	6	4	6	¾	4	7	3	9

Feet Long	Side 30 Inches.			Feet Long	Side 30½ Inches.		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	6	3	0	1	6	4	3
2	12	6	0	2	12	8	6
3	18	9	0	3	19	0	9
4	25	0	0	4	25	5	0
5	31	3	0	5	31	9	3
6	37	6	0	6	38	1	6
7	43	9	0	7	44	5	9
8	50	0	0	8	50	10	0
9	56	3	0	9	57	2	3
10	62	6	0	10	63	6	6
11	68	9	0	11	69	10	9
12	75	0	0	12	76	3	0
13	81	3	0	13	82	7	3
14	87	6	0	14	88	11	6
15	93	9	0	15	95	3	9
16	100	0	0	16	101	8	1
17	106	3	0	17	108	0	4
18	112	6	0	18	114	4	7
19	118	9	0	19	120	8	10
20	125	0	0	20	127	1	1
21	131	3	0	21	133	5	4
22	137	6	0	22	139	9	7
23	143	9	0	23	146	1	10
24	150	0	0	24	152	6	1
25	156	3	0	25	158	10	4
26	162	6	0	26	165	2	7
27	168	9	0	27	171	6	10
28	175	0	0	28	177	11	1
29	181	3	0	29	184	3	4
30	187	6	0	30	190	7	7
31	193	9	0	31	196	11	10
32	200	0	0	32	203	4	2
33	206	3	0	33	209	8	5
34	212	6	0	34	216	0	8
35	218	9	0	35	222	4	11
36	225	0	0	36	228	9	2
37	231	3	0	37	235	1	5
38	237	6	0	38	241	5	8
39	243	9	0	39	247	9	11
40	250	0	0	40	254	2	2
41	256	3	0	41	260	6	5
42	262	6	0	42	266	10	8
43	268	9	0	43	273	2	11
44	275	0	0	44	279	7	2
45	281	3	0	45	285	11	5

½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	1	6	9	0	¼	1	7	0	9
½	3	1	6	0	½	3	2	1	6
¾	4	8	3	0	¾	4	9	2	3

Feet Long	Side 30½ Inches.			Feet Long	Side 30¾ Inches.		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	6	5	6	1	6	6	9
2	12	11	0	2	13	1	7
3	19	4	6	3	19	8	4
4	25	10	1	4	26	3	2
5	32	3	7	5	32	9	11
6	38	9	1	6	39	4	9
7	45	2	7	7	45	11	6
8	51	8	2	8	52	6	4
9	58	1	8	9	59	1	2
10	64	7	2	10	65	7	11
11	71	0	8	11	72	2	9
12	77	6	3	12	78	9	6
13	83	11	9	13	85	4	4
14	90	5	3	14	91	11	1
15	96	10	9	15	98	5	11
16	103	4	4	16	105	0	9
17	109	9	10	17	111	7	6
18	116	3	4	18	118	2	4
19	122	8	10	19	124	9	1
20	129	2	5	20	131	3	11
21	135	7	11	21	137	10	8
22	142	1	5	22	144	5	6
23	148	6	11	23	151	0	3
24	155	0	6	24	157	7	1
25	161	6	0	25	164	1	11
26	167	11	6	26	170	8	8
27	174	5	0	27	177	3	6
28	180	10	7	28	183	10	3
29	187	4	1	29	190	5	1
30	193	9	7	30	196	11	10
31	200	3	1	31	203	6	8
32	206	8	8	32	210	1	6
33	213	2	2	33	216	8	3
34	219	7	8	34	223	3	1
35	226	1	2	35	229	9	10
36	232	6	9	36	236	4	8
37	239	0	3	37	242	11	5
38	245	5	9	38	249	6	3
39	251	11	3	39	256	1	0
40	258	4	10	40	262	7	10
41	264	10	4	41	269	2	8
42	271	3	10	42	275	9	5
43	277	9	4	43	282	4	3
44	284	2	11	44	288	11	0
45	290	8	5	45	295	5	10

½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	1	7	4	6	¼	1	7	8	3
½	3	2	9	0	½	3	3	4	6
¾	4	10	1	6	¾	4	11	0	9

Feet Long	Side 31 Inches.			Feet Long	Side 31½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	6	8	1	1	6	9	4		
2	13	4	2	2	13	6	9		
3	20	0	3	3	20	4	1		
4	26	8	4	4	27	1	6		
5	33	4	5	5	33	10	10		
6	40	0	6	6	40	8	3		
7	46	8	7	7	47	5	7		
8	53	4	8	8	54	3	0		
9	60	0	9	9	61	0	5		
10	66	8	10	10	67	9	9		
11	73	4	11	11	74	7	2		
12	80	1	0	12	81	4	6		
13	86	9	1	13	88	1	11		
14	93	5	2	14	94	11	3		
15	100	1	3	15	101	8	8		
16	106	9	4	16	108	6	1		
17	113	5	5	17	115	3	5		
18	120	1	6	18	122	0	10		
19	126	9	7	19	128	10	2		
20	133	5	8	20	135	7	7		
21	140	1	9	21	142	4	11		
22	146	9	10	22	149	2	4		
23	153	5	11	23	155	11	8		
24	160	2	0	24	162	9	1		
25	166	10	1	25	169	6	6		
26	173	6	2	26	176	3	10		
27	180	2	3	27	183	1	3		
28	186	10	4	28	189	10	7		
29	193	6	5	29	196	8	0		
30	200	2	6	30	203	5	4		
31	206	10	7	31	210	2	9		
32	213	6	8	32	217	0	2		
33	220	2	9	33	223	9	6		
34	226	10	10	34	230	6	11		
35	233	6	11	35	237	4	3		
36	240	3	0	36	244	1	8		
37	246	11	1	37	250	11	0		
38	253	7	2	38	257	8	5		
39	260	3	3	39	264	5	9		
40	266	11	4	40	271	3	2		
41	273	7	5	41	278	0	7		
42	280	3	6	42	284	9	11		
43	286	11	7	43	291	7	4		
44	293	7	8	44	298	4	8		
45	300	3	9	45	305	2	1		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	1	8	0	3	¼	1	8	4	0
½	3	4	0	6	½	3	4	8	0
¾	5	0	0	9	¾	5	1	0	0

Feet Long	Side 31½ Inches.			Feet Long	Side 31¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	6	10	8	1	7	0	0		
2	13	9	4	2	14	0	0		
3	20	8	0	3	21	0	0		
4	27	6	9	4	28	0	0		
5	34	5	5	5	35	0	0		
6	41	4	1	6	42	0	0		
7	48	2	9	7	49	0	0		
8	55	1	6	8	56	0	0		
9	62	0	2	9	63	0	0		
10	68	10	10	10	70	0	0		
11	75	9	6	11	77	0	0		
12	82	8	3	12	84	0	0		
13	89	6	11	13	91	0	0		
14	96	5	7	14	98	0	0		
15	103	4	3	15	105	0	0		
16	110	3	0	16	112	0	1		
17	117	1	8	17	119	0	1		
18	124	0	4	18	126	0	1		
19	130	11	0	19	133	0	1		
20	137	9	9	20	140	0	1		
21	144	8	5	21	147	0	1		
22	151	7	1	22	154	0	1		
23	158	5	9	23	161	0	1		
24	165	4	6	24	168	0	1		
25	172	3	2	25	175	0	1		
26	179	1	10	26	182	0	1		
27	186	0	6	27	189	0	1		
28	192	11	3	28	196	0	1		
29	199	9	11	29	203	0	1		
30	206	8	7	30	210	0	1		
31	213	7	3	31	217	0	1		
32	220	6	0	32	224	0	2		
33	227	4	8	33	231	0	2		
34	234	3	4	34	238	0	2		
35	241	2	0	35	245	0	2		
36	248	0	9	36	252	0	2		
37	254	11	5	37	259	0	2		
38	261	10	1	38	266	0	2		
39	268	8	9	39	273	0	2		
40	275	7	6	40	280	0	2		
41	282	6	2	41	287	0	2		
42	289	4	10	42	294	0	2		
43	296	3	6	43	301	0	2		
44	303	2	3	44	308	0	2		
45	310	0	11	45	315	0	2		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	1	8	8	0	¼	1	9	0	0
½	3	5	4	0	½	3	6	0	0
¾	5	2	0	0	¾	5	3	0	0

Feet Long	Side 32 Inches.			Feet Long	Side 32½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	7	1	4	1	7	2	8		
2	14	2	8	2	14	5	4		
3	21	4	0	3	21	8	0		
4	28	5	4	4	28	10	8		
5	35	6	8	5	36	1	4		
6	42	8	0	6	43	4	0		
7	49	9	4	7	50	6	8		
8	56	10	8	8	57	9	4		
9	64	0	0	9	65	0	0		
10	71	1	4	10	72	2	8		
11	78	2	8	11	79	5	4		
12	85	4	0	12	86	8	0		
13	92	5	4	13	93	10	8		
14	99	6	8	14	101	1	4		
15	106	8	0	15	108	4	0		
16	113	9	4	16	115	6	9		
17	120	10	8	17	122	9	5		
18	128	0	0	18	130	0	1		
19	135	1	4	19	137	2	9		
20	142	2	8	20	144	5	5		
21	149	4	0	21	151	8	1		
22	156	5	4	22	158	10	9		
23	163	6	8	23	166	1	5		
24	170	8	0	24	173	4	1		
25	177	9	4	25	180	6	9		
26	184	10	8	26	187	9	5		
27	192	0	0	27	195	0	1		
28	199	1	4	28	202	2	9		
29	206	2	8	29	209	5	5		
30	213	4	0	30	216	8	1		
31	220	5	4	31	223	10	9		
32	227	6	8	32	231	1	6		
33	234	8	0	33	238	4	2		
34	241	9	4	34	245	6	10		
35	248	10	8	35	252	9	6		
36	256	0	0	36	260	0	2		
37	263	1	4	37	267	2	10		
38	270	2	8	38	274	5	6		
39	277	4	0	39	281	8	2		
40	284	5	4	40	288	10	10		
41	291	6	8	41	296	1	6		
42	298	8	0	42	303	4	2		
43	305	9	4	43	310	6	10		
44	312	10	8	44	317	9	6		
45	320	0	0	45	325	0	2		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	1	9	4	0	¼	1	9	8	0
½	3	6	8	0	½	3	7	4	0
¾	5	4	0	0	¾	5	5	0	0

Feet Long	Side 32½ Inches.			Feet Long	Side 32¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	7	4	0	1	7	5	4		
2	14	8	0	2	14	10	9		
3	22	0	0	3	22	4	1		
4	29	4	1	4	29	9	6		
5	36	8	1	5	37	2	10		
6	44	0	1	6	44	8	3		
7	51	4	1	7	52	1	7		
8	58	8	2	8	59	7	0		
9	66	0	2	9	67	0	5		
10	73	4	2	10	74	5	9		
11	80	8	2	11	81	11	2		
12	88	0	3	12	89	4	6		
13	95	4	3	13	96	9	11		
14	102	8	3	14	104	3	3		
15	110	0	3	15	111	8	8		
16	117	4	4	16	119	2	1		
17	124	8	4	17	126	7	5		
18	132	0	4	18	134	0	10		
19	139	4	4	19	141	6	2		
20	146	8	5	20	148	11	7		
21	154	0	5	21	156	4	11		
22	161	4	5	22	163	10	4		
23	168	8	5	23	171	3	8		
24	176	0	6	24	178	9	1		
25	183	4	6	25	186	2	6		
26	190	8	6	26	193	7	10		
27	198	0	6	27	201	1	3		
28	205	4	7	28	208	6	7		
29	212	8	7	29	216	0	0		
30	220	0	7	30	223	5	4		
31	227	4	7	31	230	10	9		
32	234	8	8	32	238	4	2		
33	242	0	8	33	245	9	6		
34	249	4	8	34	253	2	11		
35	256	8	8	35	260	8	3		
36	264	0	9	36	268	1	8		
37	271	4	9	37	275	7	0		
38	278	8	9	38	283	0	5		
39	286	0	9	39	290	5	9		
40	293	4	10	40	297	11	2		
41	300	8	10	41	305	4	7		
42	308	0	10	42	312	9	11		
43	315	4	10	43	320	3	4		
44	322	8	11	44	327	8	8		
45	330	0	11	45	335	2	1		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	1	10	0	0	¼	1	10	4	0
½	3	8	0	0	½	3	8	8	0
¾	5	6	0	0	¾	5	7	0	0

Feet Long	Side 33 Inches.			Feet Long	Side 33½ Inches.		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	7	6	9	1	7	8	1
2	15	1	6	2	15	4	3
3	22	8	3	3	23	0	4
4	30	3	0	4	30	8	6
5	37	9	9	5	38	4	7
6	45	4	6	6	46	0	9
7	52	11	3	7	53	8	10
8	60	6	0	8	61	5	0
9	68	0	9	9	69	1	2
10	75	7	6	10	76	9	3
11	83	2	3	11	84	5	5
12	90	9	0	12	92	1	6
13	98	3	9	13	99	9	8
14	105	10	6	14	107	5	9
15	113	5	3	15	115	1	11
16	121	0	0	16	122	10	1
17	128	6	9	17	130	6	2
18	136	1	6	18	138	2	4
19	143	8	3	19	145	10	5
20	151	3	0	20	153	6	7
21	158	9	9	21	161	2	8
22	166	4	6	22	168	10	10
23	173	11	3	23	176	6	11
24	181	6	0	24	184	3	1
25	189	0	9	25	191	11	3
26	196	7	6	26	199	7	4
27	204	2	3	27	207	8	6
28	211	9	0	28	214	11	7
29	219	3	9	29	222	7	9
30	226	10	6	30	230	3	10
31	234	5	3	31	238	0	0
32	242	0	0	32	245	8	2
33	249	6	9	33	253	4	3
34	257	1	6	34	261	0	5
35	264	8	3	35	268	8	6
36	272	3	0	36	276	4	8
37	279	9	9	37	284	0	9
38	287	4	6	38	291	8	11
39	294	11	3	39	299	5	0
40	302	6	0	40	307	1	2
41	310	0	9	41	314	9	4
42	317	7	6	42	322	5	5
43	325	2	3	43	330	1	7
44	332	9	0	44	337	9	8
45	340	3	9	45	345	5	10

¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	1	10	8	3	¼	1	11	0	3
½	3	9	4	6	½	3	10	0	6
¾	5	8	0	9	¾	5	9	0	9

Feet Long	Side 33½ Inches.			Feet Long	Side 33¾ Inches.		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	7	9	6	1	7	10	11
2	15	7	0	2	15	9	10
3	23	4	6	3	23	8	9
4	31	2	1	4	31	7	8
5	38	11	7	5	39	6	7
6	46	9	1	6	47	5	6
7	54	6	7	7	55	4	5
8	62	4	2	8	63	3	4
9	70	1	8	9	71	2	3
10	77	11	2	10	79	1	2
11	85	8	8	11	87	0	1
12	93	6	3	12	94	11	0
13	101	3	9	13	102	9	11
14	109	1	3	14	110	8	10
15	116	10	9	15	118	7	9
16	124	8	4	16	126	6	9
17	132	5	10	17	134	5	8
18	140	3	4	18	142	4	7
19	148	0	10	19	150	3	6
20	155	10	5	20	158	2	5
21	163	7	11	21	166	1	4
22	171	5	5	22	174	0	3
23	179	2	11	23	181	11	2
24	187	0	6	24	189	10	1
25	194	10	0	25	197	9	0
26	202	7	6	26	205	7	11
27	210	5	0	27	213	6	10
28	218	2	7	28	221	5	9
29	226	0	1	29	229	4	8
30	233	9	7	30	237	3	7
31	241	7	1	31	245	2	6
32	249	4	8	32	253	1	6
33	257	2	2	33	261	0	5
34	264	11	8	34	268	11	4
35	272	9	2	35	276	10	3
36	280	6	9	36	284	9	2
37	288	4	3	37	292	8	1
38	296	1	9	38	300	7	0
39	303	11	3	39	308	5	11
40	311	8	10	40	316	4	10
41	319	6	4	41	324	3	9
42	327	3	10	42	332	2	8
43	335	1	4	43	340	1	7
44	342	10	11	44	348	0	6
45	350	8	5	45	355	11	5

¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	1	11	4	6	¼	1	11	8	9
½	3	10	9	0	½	3	11	5	6
¾	5	10	1	6	¾	5	11	2	3

Feet Long	Side 34 Inches.			Feet Long	Side 34½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	8	0	4	1	8	1	9		
2	16	0	8	2	16	3	6		
3	24	1	0	3	24	5	3		
4	32	1	4	4	32	7	0		
5	40	1	8	5	40	8	9		
6	48	2	0	6	48	10	6		
7	56	2	4	7	57	0	3		
8	64	2	8	8	65	2	0		
9	72	3	0	9	73	3	9		
10	80	3	4	10	81	5	6		
11	88	3	8	11	89	7	3		
12	96	4	0	12	97	9	0		
13	104	4	4	13	105	10	9		
14	112	4	8	14	114	0	6		
15	120	5	0	15	122	2	4		
16	128	5	4	16	130	4	1		
17	136	5	8	17	138	5	10		
18	144	6	0	18	146	7	7		
19	152	6	4	19	154	9	4		
20	160	6	8	20	162	11	1		
21	168	7	0	21	171	0	10		
22	176	7	4	22	179	2	7		
23	184	7	8	23	187	4	4		
24	192	8	0	24	195	6	1		
25	200	8	4	25	203	7	10		
26	208	8	8	26	211	9	7		
27	216	9	0	27	219	11	4		
28	224	9	4	28	228	1	1		
29	232	9	8	29	236	2	10		
30	240	10	0	30	244	4	7		
31	248	10	4	31	252	6	4		
32	256	10	8	32	260	8	2		
33	264	11	0	33	268	9	11		
34	272	11	4	34	276	11	8		
35	280	11	8	35	285	1	5		
36	289	0	0	36	293	3	2		
37	297	0	4	37	301	4	11		
38	305	0	8	38	309	6	8		
39	313	1	0	39	317	8	5		
40	321	1	4	40	325	10	2		
41	329	1	8	41	333	11	11		
42	337	2	0	42	342	1	8		
43	345	2	4	43	350	3	5		
44	353	2	8	44	358	5	2		
45	361	3	0	45	366	6	11		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	2	0	1	0	¼	2	0	5	3
½	4	0	2	0	½	4	0	10	6
¾	6	0	3	0	¾	6	1	3	9

Feet Long	Side 34½ Inches.			Feet Long	Side 34¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	8	3	2	1	8	4	7		
2	16	6	4	2	16	9	3		
3	24	9	6	3	25	1	10		
4	33	0	9	4	33	6	6		
5	41	3	11	5	41	11	1		
6	49	7	1	6	50	3	9		
7	57	10	3	7	58	8	4		
8	66	1	6	8	67	1	0		
9	74	4	8	9	75	5	8		
10	82	7	10	10	83	10	3		
11	90	11	0	11	92	2	11		
12	99	2	3	12	100	7	6		
13	107	5	5	13	109	0	2		
14	115	8	7	14	117	4	9		
15	123	11	9	15	125	9	5		
16	132	3	0	16	134	2	1		
17	140	6	2	17	142	6	8		
18	148	9	4	18	150	11	4		
19	157	0	6	19	159	3	11		
20	165	3	9	20	167	8	7		
21	173	6	11	21	176	1	2		
22	181	10	1	22	184	5	10		
23	190	1	3	23	192	10	5		
24	198	4	6	24	201	3	1		
25	206	7	8	25	209	7	9		
26	214	10	10	26	218	0	4		
27	223	2	0	27	226	5	0		
28	231	5	3	28	234	9	7		
29	239	8	5	29	243	2	3		
30	247	11	7	30	251	6	10		
31	256	2	9	31	259	11	6		
32	264	6	0	32	268	4	2		
33	272	9	2	33	276	8	9		
34	281	0	4	34	285	1	5		
35	289	3	6	35	293	6	0		
36	297	6	9	36	301	10	8		
37	305	9	11	37	310	3	3		
38	314	1	1	38	318	7	11		
39	322	4	3	39	327	0	6		
40	330	7	6	40	335	5	2		
41	338	10	8	41	343	9	10		
42	347	1	10	42	352	2	5		
43	355	5	0	43	360	7	1		
44	363	8	3	44	368	11	8		
45	371	11	5	45	377	4	4		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	2	0	9	6	¼	2	1	1	9
½	4	1	7	0	½	4	2	3	6
¾	6	2	4	6	¾	6	3	5	3

Feet Long	Side 35 Inches.			Feet Long	Side 35½ Inches.		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	8	6	1	1	8	7	6
2	17	0	2	2	17	3	1
3	25	6	3	3	25	10	7
4	34	0	4	4	34	6	2
5	42	6	5	5	43	1	8
6	51	0	6	6	51	9	3
7	59	6	7	7	60	4	9
8	68	0	8	8	69	0	4
9	76	6	9	9	77	7	11
10	85	0	10	10	86	3	5
11	93	6	11	11	94	11	0
12	102	1	0	12	103	6	6
13	110	7	1	13	112	2	1
14	119	1	2	14	120	9	7
15	127	7	3	15	129	5	2
16	136	1	4	16	138	0	9
17	144	7	5	17	146	8	3
18	153	1	6	18	155	3	10
19	161	7	7	19	163	11	4
20	170	1	8	20	172	6	11
21	178	7	9	21	181	2	5
22	187	1	10	22	189	10	0
23	195	7	11	23	198	5	6
24	204	2	0	24	207	1	1
25	212	8	1	25	215	8	8
26	221	2	2	26	224	4	2
27	229	8	3	27	232	11	9
28	238	2	4	28	241	7	3
29	246	8	5	29	250	2	10
30	255	2	6	30	258	10	4
31	263	8	7	31	267	5	11
32	272	2	8	32	276	1	6
33	280	8	9	33	284	9	0
34	289	2	10	34	293	4	7
35	297	8	11	35	302	0	1
36	306	3	0	36	310	7	8
37	314	9	1	37	319	3	2
38	323	3	2	38	327	10	9
39	331	9	3	39	336	6	3
40	340	3	4	40	345	1	10
41	348	9	5	41	353	9	5
42	357	3	6	42	362	4	11
43	365	9	7	43	371	0	6
44	374	3	8	44	379	8	0
45	382	9	9	45	388	3	7

½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	2	1	6	3	¼	2	1	10	6
½	4	3	0	6	½	4	3	9	0
¾	6	4	6	9	¾	6	5	7	6

Feet Long	Side 35½ Inches.			Feet Long	Side 35¾ Inches.		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	8	9	0	1	8	10	6
2	17	6	0	2	17	9	0
3	26	3	0	3	26	7	6
4	35	0	1	4	35	6	0
5	43	9	1	5	44	4	6
6	52	6	1	6	53	3	0
7	61	3	1	7	62	1	6
8	70	0	2	8	71	0	0
9	78	9	2	9	79	10	6
10	87	6	2	10	88	9	0
11	96	3	2	11	97	7	6
12	105	0	3	12	106	6	0
13	113	9	3	13	115	4	6
14	122	6	3	14	124	3	0
15	131	3	3	15	133	1	6
16	140	0	4	16	142	0	1
17	148	9	4	17	150	10	7
18	157	6	4	18	159	9	1
19	166	3	4	19	168	7	7
20	175	0	5	20	177	6	1
21	183	9	5	21	186	4	7
22	192	6	5	22	195	3	1
23	201	3	5	23	204	1	7
24	210	0	6	24	213	0	1
25	218	9	6	25	221	10	7
26	227	6	6	26	230	9	1
27	236	3	6	27	239	7	7
28	245	0	7	28	248	6	1
29	253	9	7	29	257	4	7
30	262	6	7	30	266	3	1
31	271	3	7	31	275	1	7
32	280	0	8	32	284	0	2
33	288	9	8	33	292	10	3
34	297	6	8	34	301	9	2
35	306	3	8	35	310	7	8
36	315	0	9	36	319	6	2
37	323	9	9	37	328	4	8
38	332	6	9	38	337	3	2
39	341	3	9	39	346	1	8
40	350	0	10	40	355	0	2
41	358	9	10	41	363	10	8
42	367	6	10	42	372	9	2
43	376	3	10	43	381	7	8
44	385	0	11	44	390	6	2
45	393	9	11	45	399	4	8

½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	2	2	3	0	¼	2	2	7	6
½	4	4	6	0	½	4	5	3	0
¾	6	6	9	0	¾	6	7	10	6

Feet Long	Side 36 Inches.			Feet Long	Side 36½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	9	0	0	1	9	1	6		
2	18	0	0	2	18	3	0		
3	27	0	0	3	27	4	6		
4	36	0	0	4	36	6	0		
5	45	0	0	5	45	7	6		
6	54	0	0	6	54	9	0		
7	63	0	0	7	63	10	6		
8	72	0	0	8	73	0	0		
9	81	0	0	9	82	1	6		
10	90	0	0	10	91	3	0		
11	99	0	0	11	100	4	6		
12	108	0	0	12	109	6	0		
13	117	0	0	13	118	7	6		
14	126	0	0	14	127	9	0		
15	135	0	0	15	136	10	6		
16	144	0	0	16	146	0	1		
17	153	0	0	17	155	1	7		
18	162	0	0	18	164	3	1		
19	171	0	0	19	173	4	7		
20	180	0	0	20	182	6	1		
21	189	0	0	21	191	7	7		
22	198	0	0	22	200	9	1		
23	207	0	0	23	209	10	7		
24	216	0	0	24	219	0	1		
25	225	0	0	25	228	1	7		
26	234	0	0	26	237	3	1		
27	243	0	0	27	246	4	7		
28	252	0	0	28	255	6	1		
29	261	0	0	29	264	7	7		
30	270	0	0	30	273	9	1		
31	279	0	0	31	282	10	7		
32	288	0	0	32	292	0	2		
33	297	0	0	33	301	1	8		
34	306	0	0	34	310	3	2		
35	315	0	0	35	319	4	8		
36	324	0	0	36	328	6	2		
37	333	0	0	37	337	7	8		
38	342	0	0	38	346	9	2		
39	351	0	0	39	355	10	8		
40	360	0	0	40	365	0	2		
41	369	0	0	41	374	1	8		
42	378	0	0	42	383	3	2		
43	387	0	0	43	392	4	8		
44	396	0	0	44	401	6	2		
45	405	0	0	45	410	7	8		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	2	3	0	0	¼	2	3	4	6
½	4	6	0	0	½	4	6	9	0
¾	6	9	0	0	¾	6	10	1	6

Feet Long	Side 36½ Inches.			Feet Long	Side 36¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	9	3	0	1	9	4	6		
2	18	6	0	2	18	9	1		
3	27	9	0	3	28	1	7		
4	37	0	1	4	37	6	2		
5	46	3	1	5	46	10	8		
6	55	6	1	6	56	3	3		
7	64	9	1	7	65	7	9		
8	74	0	2	8	75	0	4		
9	83	3	2	9	84	4	11		
10	92	6	2	10	93	9	5		
11	101	9	2	11	103	2	0		
12	111	0	3	12	112	6	6		
13	120	3	3	13	121	11	1		
14	129	6	3	14	131	3	7		
15	138	9	3	15	140	8	2		
16	148	0	4	16	150	0	9		
17	157	3	4	17	159	5	3		
18	166	6	4	18	168	9	10		
19	175	9	4	19	178	2	4		
20	185	0	5	20	187	6	11		
21	194	3	5	21	196	11	5		
22	203	6	5	22	206	4	0		
23	212	9	5	23	215	8	6		
24	222	0	6	24	225	1	1		
25	231	3	6	25	234	5	8		
26	240	6	6	26	243	10	2		
27	249	9	6	27	253	2	9		
28	259	0	7	28	262	7	3		
29	268	3	7	29	271	11	10		
30	277	6	7	30	281	4	4		
31	286	9	7	31	290	8	11		
32	296	0	8	32	300	1	6		
33	305	3	8	33	309	6	0		
34	314	6	8	34	318	10	7		
35	323	9	8	35	328	3	1		
36	333	0	9	36	337	7	8		
37	342	3	9	37	347	0	2		
38	351	6	9	38	356	4	9		
39	360	9	9	39	365	9	3		
40	370	0	10	40	375	1	10		
41	379	3	10	41	384	6	5		
42	388	6	10	42	393	10	11		
43	397	9	10	43	403	3	6		
44	407	0	11	44	412	8	0		
45	416	3	11	45	422	0	7		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	2	3	9	0	¼	2	4	1	6
½	4	7	6	0	½	4	8	3	0
¾	6	11	3	0	¾	7	0	4	6

Feet Long	Side 37 Inches.			Feet Long	Side 37½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	9	6	1	1	9	7	7		
2	19	0	2	2	19	3	3		
3	28	6	3	3	28	10	10		
4	38	0	4	4	38	6	6		
5	47	6	5	5	48	2	1		
6	57	0	6	6	57	9	9		
7	66	6	7	7	67	5	4		
8	76	0	8	8	77	1	0		
9	85	6	9	9	86	8	8		
10	95	0	10	10	96	4	3		
11	104	6	11	11	105	11	11		
12	114	1	0	12	115	7	6		
13	123	7	1	13	125	3	2		
14	133	1	2	14	134	10	9		
15	142	7	3	15	144	6	5		
16	152	1	4	16	154	2	1		
17	161	7	5	17	163	9	8		
18	171	1	6	18	173	5	4		
19	180	7	7	19	183	0	11		
20	190	1	8	20	192	8	7		
21	199	7	9	21	202	4	2		
22	209	1	10	22	211	11	10		
23	218	7	11	23	221	7	5		
24	228	2	0	24	231	3	1		
25	237	8	1	25	240	10	9		
26	247	2	2	26	250	6	4		
27	256	8	3	27	260	2	0		
28	266	2	4	28	269	9	7		
29	275	8	5	29	279	5	3		
30	285	2	6	30	289	0	10		
31	294	8	7	31	298	8	6		
32	304	2	8	32	308	4	2		
33	313	8	9	33	317	11	9		
34	323	2	10	34	327	7	5		
35	332	8	11	35	337	3	0		
36	342	3	0	36	346	10	8		
37	351	9	1	37	356	6	3		
38	361	3	2	38	366	1	11		
39	370	9	3	39	375	9	6		
40	380	3	4	40	385	5	2		
41	389	9	5	41	395	0	10		
42	399	3	6	42	404	8	5		
43	408	9	7	43	414	4	1		
44	418	3	8	44	423	11	8		
45	427	9	9	45	433	7	4		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	2	4	6	3	¼	2	4	10	9
½	4	9	0	6	½	4	9	9	6
¾	7	1	6	9	¾	7	2	8	3

Feet Long	Side 37½ Inches.			Feet Long	Side 37¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	9	9	2	1	9	10	9		
2	19	6	4	2	19	9	6		
3	29	3	6	3	29	8	3		
4	39	0	9	4	39	7	0		
5	48	9	11	5	49	5	9		
6	58	7	1	6	59	4	6		
7	68	4	3	7	69	3	3		
8	78	1	6	8	79	2	0		
9	87	10	8	9	89	0	9		
10	97	7	10	10	98	11	6		
11	107	5	0	11	108	10	3		
12	117	2	3	12	118	9	0		
13	126	11	5	13	128	7	9		
14	136	8	7	14	138	6	6		
15	146	5	9	15	148	5	3		
16	156	3	0	16	158	4	1		
17	166	0	2	17	168	2	10		
18	175	9	4	18	178	1	7		
19	185	6	6	19	188	0	4		
20	195	3	9	20	197	11	1		
21	205	0	11	21	207	9	10		
22	214	10	1	22	217	8	7		
23	224	7	3	23	227	7	4		
24	234	4	6	24	237	6	1		
25	244	1	8	25	247	4	10		
26	253	10	10	26	257	3	7		
27	263	8	0	27	267	2	4		
28	273	5	3	28	277	1	1		
29	283	2	5	29	286	11	10		
30	292	11	7	30	296	10	7		
31	302	8	9	31	306	9	4		
32	312	6	0	32	316	8	2		
33	322	3	2	33	326	7	11		
34	332	0	4	34	336	5	8		
35	341	9	6	35	346	4	5		
36	351	6	4	36	356	3	2		
37	361	3	11	37	366	1	11		
38	371	1	1	38	376	0	8		
39	380	10	3	39	385	11	5		
40	390	7	6	40	395	10	2		
41	400	4	8	41	405	8	11		
42	410	1	10	42	415	7	8		
43	419	11	0	43	425	6	5		
44	429	8	3	44	435	5	2		
45	439	5	5	45	445	3	11		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	2	5	3	6	¼	2	5	8	3
½	4	10	7	0	½	4	11	4	6
¾	7	3	10	6	¾	7	5	0	9

Feet Long	Side 38 Inches.			Feet Long	Side 38½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	10	0	4	1	10	1	11		
2	20	0	8	2	20	3	10		
3	30	1	0	3	30	5	9		
4	40	1	4	4	40	7	8		
5	50	1	8	5	50	9	7		
6	60	2	0	6	60	11	6		
7	70	2	4	7	71	1	5		
8	80	2	8	8	81	3	4		
9	90	3	0	9	91	5	3		
10	100	3	4	10	101	7	2		
11	110	3	8	11	111	9	1		
12	120	4	0	12	121	11	0		
13	130	4	4	13	132	0	11		
14	140	4	8	14	142	2	10		
15	150	5	0	15	152	4	9		
16	160	5	4	16	162	6	9		
17	170	5	8	17	172	8	8		
18	180	6	0	18	182	10	7		
19	190	6	4	19	193	0	6		
20	200	6	8	20	203	2	5		
21	210	7	0	21	213	4	4		
22	220	7	4	22	223	6	3		
23	230	7	8	23	233	8	2		
24	240	8	0	24	243	10	1		
25	250	8	4	25	254	0	0		
26	260	8	8	26	264	1	11		
27	270	9	0	27	274	3	10		
28	280	9	4	28	284	5	9		
29	290	9	8	29	294	7	8		
30	300	10	0	30	304	9	7		
31	310	10	4	31	314	11	6		
32	320	10	8	32	325	1	6		
33	330	11	0	33	335	3	5		
34	340	11	4	34	345	5	4		
35	350	11	8	35	355	7	3		
36	361	0	0	36	365	9	2		
37	371	0	4	37	375	11	1		
38	381	0	8	38	386	1	0		
39	391	1	0	39	396	2	11		
40	401	1	4	40	406	4	10		
41	411	1	8	41	416	6	9		
42	421	2	0	42	426	8	8		
43	431	2	4	43	436	10	7		
44	441	2	8	44	447	0	6		
45	451	3	0	45	457	2	5		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	2	6	1	0	¼	2	6	5	9
½	5	0	2	0	½	5	0	11	6
¾	7	6	3	0	¾	7	7	5	3

Feet Long	Side 38½ Inches.			Feet Long	Side 38¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	10	3	6	1	10	5	1		
2	20	7	0	2	20	10	3		
3	30	10	6	3	31	3	4		
4	41	2	1	4	41	8	6		
5	51	5	7	5	52	1	7		
6	61	9	1	6	62	6	9		
7	72	0	7	7	72	11	10		
8	82	4	2	8	83	5	0		
9	92	7	8	9	93	10	2		
10	102	11	2	10	104	3	3		
11	113	2	8	11	114	8	5		
12	123	6	3	12	125	1	6		
13	133	9	9	13	135	6	8		
14	144	1	3	14	145	11	9		
15	154	4	9	15	156	4	11		
16	164	8	4	16	166	10	1		
17	174	11	10	17	177	3	2		
18	185	3	4	18	187	8	4		
19	195	6	10	19	198	1	5		
20	205	10	5	20	208	6	7		
21	216	1	11	21	218	11	8		
22	226	5	5	22	229	4	10		
23	236	8	11	23	239	9	11		
24	247	0	6	24	250	3	1		
25	257	4	0	25	260	8	3		
26	267	7	6	26	271	1	4		
27	277	11	0	27	281	6	6		
28	288	2	7	28	291	11	7		
29	298	6	1	29	302	4	9		
30	308	9	7	30	312	9	10		
31	319	1	1	31	323	3	0		
32	329	4	8	32	333	8	2		
33	339	8	2	33	344	1	3		
34	348	11	8	34	354	6	5		
35	360	3	2	35	364	11	6		
36	370	6	9	36	375	4	8		
37	380	10	3	37	385	9	9		
38	391	1	9	38	396	2	11		
39	401	5	3	39	406	8	0		
40	411	8	10	40	417	1	2		
41	422	0	4	41	427	6	4		
42	432	3	10	42	437	11	5		
43	442	7	4	43	448	4	7		
44	452	10	11	44	458	9	8		
45	463	2	5	45	469	2	10		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	2	6	10	6	¼	2	7	3	3
½	5	1	9	0	½	5	2	6	6
¾	7	8	7	6	¾	7	9	9	9

Feet Long	Side 39 Inches.			Feet Long	Side 39½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	10	6	9	1	10	8	4		
2	20	1	6	2	21	4	9		
3	31	8	3	3	32	1	1		
4	42	3	0	4	42	9	6		
5	52	9	9	5	53	5	10		
6	63	4	6	6	64	2	3		
7	73	11	3	7	74	10	7		
8	84	6	0	8	85	7	0		
9	95	0	9	9	96	3	5		
10	105	7	6	10	106	11	9		
11	116	2	3	11	117	8	2		
12	126	9	0	12	128	4	6		
13	137	3	9	13	139	0	11		
14	147	10	6	14	149	9	3		
15	158	5	3	15	160	5	8		
16	169	0	0	16	171	2	1		
17	179	6	9	17	181	10	5		
18	190	1	6	18	192	6	10		
19	200	8	3	19	203	3	2		
20	211	3	0	20	213	11	7		
21	221	9	9	21	224	7	11		
22	232	4	6	22	235	4	4		
23	242	11	3	23	246	0	8		
24	253	6	0	24	256	9	1		
25	264	0	9	25	267	5	6		
26	274	7	6	26	278	1	10		
27	285	2	3	27	288	10	3		
28	295	9	0	28	299	6	7		
29	306	3	9	29	310	3	0		
30	316	10	6	30	320	11	4		
31	327	5	3	31	331	7	9		
32	338	0	0	32	342	4	2		
33	348	6	9	33	353	0	6		
34	359	1	6	34	363	8	11		
35	369	8	3	35	374	5	3		
36	380	3	0	36	385	1	8		
37	390	9	9	37	395	10	0		
38	401	4	6	38	406	6	5		
39	411	11	3	39	417	2	9		
40	422	6	0	40	427	11	2		
41	433	0	9	41	438	7	7		
42	443	7	6	42	449	3	11		
43	454	2	3	43	460	0	4		
44	464	9	0	44	470	8	8		
45	475	3	9	45	481	5	1		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	2	7	8	3	¼	2	8	1	0
½	5	3	4	6	½	5	4	2	0
¾	7	11	0	9	¾	8	0	3	0

Feet Long	Side 39½ Inches.			Feet Long	Side 39¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	10	10	0	1	10	11	8		
2	21	8	0	2	21	11	4		
3	32	6	0	3	32	11	0		
4	43	4	1	4	43	10	8		
5	54	2	1	5	54	10	4		
6	65	0	1	6	65	10	0		
7	75	10	1	7	76	9	8		
8	86	8	2	8	87	9	4		
9	97	6	2	9	98	9	0		
10	108	4	2	10	109	8	8		
11	119	2	2	11	120	8	4		
12	130	0	3	12	131	8	0		
13	140	10	3	13	142	7	8		
14	151	8	3	14	153	7	4		
15	162	6	3	15	164	7	0		
16	173	4	4	16	175	6	9		
17	184	2	4	17	186	6	5		
18	195	0	4	18	197	6	1		
19	205	10	4	19	208	5	9		
20	216	8	5	20	219	5	5		
21	227	6	5	21	230	5	1		
22	238	4	5	22	241	4	9		
23	249	2	5	23	252	4	5		
24	260	0	6	24	263	4	1		
25	270	10	6	25	274	3	9		
26	281	8	6	26	285	3	5		
27	292	6	6	27	296	3	1		
28	303	4	7	28	307	2	9		
29	314	2	7	29	318	2	5		
30	325	0	7	30	329	2	1		
31	335	10	7	31	340	1	9		
32	346	8	8	32	351	1	6		
33	357	6	8	33	362	1	2		
34	368	4	8	34	373	0	10		
35	379	2	8	35	384	0	6		
36	390	0	9	36	395	0	2		
37	400	10	9	37	405	11	10		
38	411	8	9	38	416	11	6		
39	422	6	9	39	427	11	2		
40	433	4	10	40	438	10	10		
41	444	2	10	41	449	10	6		
42	455	0	10	42	460	10	2		
43	465	10	10	43	471	9	10		
44	476	8	11	44	482	9	6		
45	487	6	11	45	493	9	2		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	2	8	6	0	¼	2	8	11	0
½	5	5	0	0	½	5	5	10	0
¾	8	1	6	0	¾	8	2	9	0

Feet Long	Side 40 Inches.			Feet Long	Side 40½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	11	1	4	1	11	3	0		
2	22	2	8	2	22	6	0		
3	33	4	0	3	33	9	0		
4	44	5	4	4	45	0	0		
5	55	6	8	5	56	3	0		
6	66	8	0	6	67	6	0		
7	77	9	4	7	78	9	0		
8	88	10	8	8	90	0	0		
9	100	0	0	9	101	3	0		
10	111	1	4	10	112	6	0		
11	122	2	8	11	123	9	0		
12	133	4	0	12	135	0	0		
13	144	5	4	13	146	3	0		
14	155	6	8	14	157	6	0		
15	166	8	0	15	168	9	0		
16	177	9	4	16	180	0	1		
17	188	10	8	17	191	3	1		
18	200	0	0	18	202	6	1		
19	211	1	4	19	213	9	1		
20	222	2	8	20	225	0	1		
21	233	4	0	21	236	3	1		
22	244	5	4	22	247	6	1		
23	255	6	8	23	258	9	1		
24	266	8	0	24	270	0	1		
25	277	9	4	25	281	3	1		
26	288	10	8	26	292	6	1		
27	300	0	0	27	303	9	1		
28	311	1	4	28	315	0	1		
29	322	2	8	29	326	3	1		
30	333	4	0	30	337	6	1		
31	344	5	4	31	348	9	1		
32	355	6	8	32	360	0	2		
33	366	8	0	33	371	3	2		
34	377	9	4	34	382	6	2		
35	388	10	8	35	393	9	2		
36	400	0	0	36	405	0	2		
37	411	1	4	37	416	3	2		
38	422	2	8	38	427	6	2		
39	433	4	0	39	438	9	2		
40	444	5	4	40	450	0	2		
41	455	6	8	41	461	3	2		
42	466	8	0	42	472	6	2		
43	477	9	4	43	483	9	2		
44	488	10	8	44	495	0	2		
45	500	0	0	45	506	3	2		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	2	9	4	0	¼	2	9	9	0
½	5	6	8	0	½	5	7	6	0
¾	8	4	0	0	¾	8	5	3	0

Feet Long	Side 40½ Inches.			Feet Long	Side 40¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	11	4	8	1	11	6	4		
2	22	9	4	2	23	0	9		
3	34	2	0	3	34	7	1		
4	45	6	9	4	46	1	6		
5	56	11	5	5	57	7	10		
6	68	4	1	6	69	2	3		
7	79	8	9	7	80	8	7		
8	91	1	6	8	92	3	0		
9	102	6	2	9	103	9	5		
10	113	10	10	10	115	3	9		
11	125	3	6	11	126	10	2		
12	136	8	3	12	138	4	6		
13	148	0	11	13	149	10	11		
14	159	5	7	14	161	5	3		
15	170	10	3	15	172	11	8		
16	182	3	0	16	184	6	1		
17	193	7	8	17	196	0	5		
18	205	0	4	18	207	6	10		
19	216	5	0	19	219	1	2		
20	227	9	9	20	230	7	7		
21	239	2	5	21	242	1	11		
22	250	7	1	22	253	8	4		
23	261	11	9	23	265	2	8		
24	273	4	6	24	276	9	1		
25	284	9	2	25	288	3	6		
26	296	1	10	26	299	9	10		
27	307	6	6	27	311	4	3		
28	318	11	3	28	322	10	7		
29	330	3	11	29	334	5	0		
30	341	8	7	30	345	11	4		
31	353	1	3	31	357	5	9		
32	364	6	0	32	369	0	2		
33	375	10	8	33	380	6	6		
34	387	3	4	34	392	0	11		
35	398	8	0	35	403	7	3		
36	410	0	9	36	415	1	8		
37	421	5	5	37	426	8	0		
38	432	10	1	38	438	2	5		
39	444	2	9	39	449	8	9		
40	455	7	6	40	461	3	2		
41	467	0	2	41	472	9	7		
42	478	4	10	42	484	3	11		
43	489	9	6	43	495	10	4		
44	501	2	3	44	507	4	8		
45	512	6	11	45	518	11	1		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	2	10	2	0	¼	2	10	7	0
½	5	8	4	0	½	5	9	2	0
¾	8	6	6	0	¾	8	7	9	0

Feet Long	Side 41 Inches.			Feet Long	Side 41½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	11	8	1	1	11	9	9		
2	23	4	2	2	23	7	7		
3	35	0	3	3	35	5	4		
4	46	8	4	4	47	3	2		
5	58	4	5	5	59	0	11		
6	70	0	6	6	70	10	9		
7	81	8	7	7	82	8	6		
8	93	4	8	8	94	6	4		
9	105	0	9	9	106	4	2		
10	116	8	10	10	118	1	11		
11	128	4	11	11	129	11	9		
12	140	1	0	12	141	9	6		
13	151	9	1	13	153	7	4		
14	163	5	2	14	165	5	1		
15	175	1	3	15	177	2	11		
16	186	9	4	16	189	0	9		
17	198	5	5	17	200	10	6		
18	210	1	6	18	212	8	4		
19	221	9	7	19	224	6	1		
20	233	5	8	20	236	3	11		
21	245	1	9	21	248	1	8		
22	256	9	10	22	259	11	6		
23	268	5	11	23	271	9	3		
24	280	2	0	24	283	7	1		
25	291	10	1	25	295	4	11		
26	303	6	2	26	307	2	8		
27	315	2	3	27	319	0	6		
28	326	10	4	28	330	10	3		
29	338	6	5	29	342	8	1		
30	350	2	6	30	354	5	10		
31	361	10	7	31	366	3	8		
32	373	6	8	32	378	1	6		
33	385	2	9	33	389	11	3		
34	396	10	10	34	401	9	1		
35	408	6	11	35	413	6	10		
36	420	3	0	36	425	4	8		
37	431	11	1	37	437	2	5		
38	443	7	2	38	449	0	3		
39	455	3	3	39	460	10	0		
40	466	11	4	40	472	7	10		
41	478	7	5	41	484	5	8		
42	490	3	6	42	496	3	5		
43	501	11	7	43	508	1	3		
44	513	7	8	44	519	11	0		
45	525	3	9	45	531	8	10		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	2	11	0	3	¼	2	11	5	3
½	5	10	0	6	½	5	10	10	6
¾	8	9	0	9	¾	8	10	3	9

Feet Long	Side 41½ Inches.			Feet Long	Side 41¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	11	11	6	1	12	1	3		
2	23	11	0	2	24	2	6		
3	35	10	6	3	36	3	9		
4	47	10	1	4	48	5	0		
5	59	9	7	5	60	6	3		
6	71	9	1	6	72	7	6		
7	83	8	7	7	84	8	9		
8	95	8	2	8	96	10	0		
9	107	7	8	9	108	11	3		
10	119	7	2	10	121	0	6		
11	131	6	8	11	133	1	9		
12	143	6	3	12	145	3	0		
13	155	5	9	13	157	4	3		
14	167	5	3	14	169	5	6		
15	179	4	9	15	181	6	9		
16	191	4	4	16	193	8	1		
17	203	3	10	17	205	9	4		
18	215	3	4	18	217	10	7		
19	227	2	10	19	229	11	10		
20	239	2	5	20	242	1	1		
21	251	1	11	21	254	2	4		
22	263	1	5	22	266	3	7		
23	275	0	11	23	278	4	10		
24	287	0	6	24	290	6	1		
25	299	0	0	25	302	7	4		
26	310	11	6	26	314	8	7		
27	322	11	0	27	326	9	10		
28	334	10	7	28	338	11	1		
29	346	10	1	29	351	0	4		
30	358	9	7	30	363	1	7		
31	370	9	1	31	375	2	10		
32	382	8	8	32	387	4	2		
33	394	8	2	33	399	5	5		
34	406	7	8	34	411	6	8		
35	418	7	2	35	423	7	11		
36	430	6	9	36	435	9	2		
37	442	6	3	37	447	10	5		
38	454	5	9	38	459	11	8		
39	466	5	3	39	472	0	11		
40	478	4	10	40	484	2	2		
41	490	4	4	41	496	3	5		
42	502	3	10	42	508	4	8		
43	514	3	4	43	520	5	11		
44	526	2	11	44	532	7	2		
45	538	2	5	45	544	8	5		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	2	11	10	6	¼	3	0	3	9
½	5	11	9	0	½	6	0	7	6
¾	8	11	7	6	¾	9	0	11	3

Feet Long	Side 42 Inches.			Feet Long	Side 42½ Inches.		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	12	3	0	1	12	4	8
2	24	6	0	2	24	9	4
3	36	9	0	3	37	2	0
4	49	0	0	4	49	6	8
5	61	3	0	5	61	11	4
6	73	6	0	6	74	4	0
7	85	9	0	7	86	8	8
8	98	0	0	8	92	1	4
9	110	3	0	9	111	6	0
10	122	6	0	10	123	10	8
11	134	9	0	11	136	3	4
12	147	0	0	12	148	8	0
13	159	3	0	13	161	0	8
14	171	6	0	14	173	5	4
15	183	9	0	15	185	10	0
16	196	0	0	16	198	2	9
17	208	3	0	17	210	7	5
18	220	6	0	18	223	0	1
19	233	9	0	19	235	4	9
20	245	0	0	20	247	9	5
21	257	3	0	21	260	2	1
22	269	6	0	22	272	6	9
23	281	9	0	23	284	11	5
24	294	0	0	24	297	4	1
25	306	3	0	25	309	8	9
26	318	6	0	26	322	1	5
27	330	9	0	27	334	6	1
28	343	0	0	28	346	10	9
29	355	3	0	29	359	3	5
30	367	6	0	30	371	8	1
31	379	9	0	31	384	0	9
32	392	0	0	32	396	5	6
33	404	3	0	33	408	10	2
34	416	6	0	34	421	2	10
35	428	9	0	35	433	7	6
36	441	0	0	36	446	0	2
37	453	3	0	37	458	4	10
38	465	6	0	38	470	9	6
39	477	9	0	39	483	2	2
40	490	0	0	40	495	6	10
41	502	3	0	41	507	11	6
42	514	6	0	42	520	4	2
43	526	9	0	43	532	8	10
44	539	0	0	44	545	1	6
45	551	3	0	45	557	6	2

¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	3	0	9	0	¼	3	1	2	0
½	6	1	6	0	½	6	2	4	0
¾	9	2	3	0	¾	9	3	6	0

Feet Long	Side 42½ Inches.			Feet Long	Side 42¾ Inches.		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	12	6	6	1	12	8	3
2	25	1	0	2	25	4	7
3	37	7	6	3	38	0	10
4	50	2	1	4	50	9	2
5	62	8	7	5	63	5	5
6	75	3	1	6	76	1	9
7	87	9	7	7	88	10	0
8	100	4	2	8	101	6	4
9	112	10	8	9	114	2	8
10	125	5	2	10	126	10	11
11	137	11	8	11	139	7	3
12	150	6	3	12	152	3	6
13	163	0	9	13	164	11	10
14	175	7	3	14	177	8	1
15	188	1	9	15	190	4	5
16	200	8	4	16	203	0	9
17	213	2	10	17	215	9	0
18	225	9	4	18	228	5	4
19	238	3	10	19	241	1	7
20	250	10	5	20	253	9	11
21	263	4	11	21	266	6	2
22	275	11	5	22	279	2	6
23	288	5	11	23	291	10	9
24	301	0	6	24	304	7	1
25	313	7	0	25	317	3	5
26	326	1	6	26	329	11	8
27	338	8	0	27	342	8	0
28	351	2	7	28	355	4	3
29	363	9	1	29	368	0	7
30	376	3	7	30	380	8	10
31	388	10	1	31	393	5	2
32	401	4	8	32	406	1	6
33	413	11	2	33	418	9	9
34	426	5	8	34	431	6	1
35	439	0	2	35	444	2	4
36	451	6	9	36	456	10	8
37	464	1	3	37	469	6	11
38	476	7	9	38	482	3	3
39	489	2	3	39	494	11	6
40	501	8	10	40	507	7	10
41	514	3	4	41	520	4	2
42	526	9	10	42	533	0	5
43	539	4	4	43	545	8	9
44	551	10	11	44	558	5	0
45	564	5	5	45	571	1	4

¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	3	1	7	6	¼	3	2	0	9
½	6	3	3	0	½	6	4	1	6
¾	9	4	10	6	¾	9	6	2	3

Feet Long	Side 43 Inches.			Feet Long	Side 43½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	12	10	1	1	12	11	10		
2	25	8	2	2	25	11	9		
3	38	6	3	3	38	11	7		
4	51	4	4	4	51	11	6		
5	64	2	5	5	64	11	4		
6	77	0	6	6	77	11	3		
7	89	10	7	7	90	11	1		
8	102	8	8	8	103	11	0		
9	115	6	9	9	116	10	11		
10	128	4	10	10	129	10	9		
11	141	2	11	11	142	10	8		
12	154	1	0	12	155	10	6		
13	166	11	1	13	168	10	5		
14	179	9	2	14	181	10	3		
15	192	7	3	15	194	10	2		
16	205	5	4	16	207	10	1		
17	218	3	5	17	220	9	11		
18	231	1	6	18	233	9	10		
19	243	11	7	19	246	9	8		
20	256	9	8	20	259	9	7		
21	269	7	9	21	272	9	5		
22	282	5	10	22	285	9	4		
23	295	3	11	23	298	9	2		
24	308	2	0	24	311	9	1		
25	321	0	1	25	324	9	0		
26	333	10	2	26	337	8	10		
27	346	8	3	27	350	8	9		
28	359	6	4	28	363	8	7		
29	372	4	5	29	376	8	6		
30	385	2	6	30	389	8	4		
31	398	0	7	31	402	8	3		
32	410	10	8	32	415	8	2		
33	423	8	9	33	428	8	0		
34	436	6	10	34	441	7	11		
35	449	4	11	35	454	7	9		
36	462	3	0	36	467	7	8		
37	475	1	1	37	480	7	6		
38	487	11	2	38	493	7	5		
39	500	9	3	39	506	7	3		
40	513	7	4	40	519	7	2		
41	526	5	5	41	532	7	1		
42	539	3	6	42	545	6	11		
43	552	1	7	43	558	6	10		
44	564	11	8	44	571	6	8		
45	577	9	9	45	584	6	7		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	3	2	6	3	¼	3	2	11	6
½	6	5	0	6	½	6	5	11	0
¾	9	7	6	9	¾	9	8	10	6

Feet Long	Side 43½ Inches.			Feet Long	Side 43¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	13	1	8	1	13	3	6		
2	26	3	4	2	26	7	0		
3	39	5	0	3	39	10	6		
4	52	6	9	4	53	2	0		
5	65	8	5	5	66	5	6		
6	78	10	1	6	79	9	0		
7	91	11	9	7	93	0	6		
8	105	1	6	8	106	4	0		
9	118	3	2	9	119	7	6		
10	131	4	10	10	132	11	0		
11	144	6	6	11	146	2	6		
12	157	8	3	12	159	6	0		
13	170	9	11	13	172	9	6		
14	183	11	7	14	186	1	0		
15	197	1	3	15	199	4	6		
16	210	3	0	16	212	8	1		
17	223	4	8	17	225	11	7		
18	236	6	4	18	239	3	1		
19	249	8	0	19	252	6	7		
20	262	9	9	20	265	10	1		
21	275	11	5	21	279	1	7		
22	289	1	1	22	292	5	1		
23	302	2	9	23	305	8	7		
24	315	4	6	24	319	0	1		
25	328	6	2	25	332	3	7		
26	341	7	10	26	345	7	1		
27	354	9	6	27	358	10	7		
28	367	11	3	28	372	2	1		
29	381	0	11	29	385	5	7		
30	394	2	7	30	398	9	1		
31	407	4	3	31	412	0	7		
32	420	6	0	32	425	4	2		
33	433	7	8	33	438	7	8		
34	446	9	4	34	451	11	2		
35	459	11	0	35	465	2	8		
36	473	0	9	36	478	6	2		
37	486	2	5	37	491	9	8		
38	499	4	1	38	505	1	2		
39	512	5	9	39	518	4	8		
40	525	7	6	40	531	8	2		
41	538	9	2	41	544	11	8		
42	551	10	10	42	558	3	2		
43	565	0	6	43	571	6	8		
44	578	2	3	44	584	10	2		
45	591	3	11	45	598	1	8		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	3	3	5	0	¼	3	3	10	6
½	6	6	10	0	½	6	7	9	0
¾	9	10	3	0	¾	9	11	7	6

Feet Long	Side 44 Inches.			Feet Long	Side 44½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	13	5	4	1	13	7	2		
2	26	10	8	2	27	2	4		
3	40	4	0	3	40	9	6		
4	53	9	4	4	54	4	8		
5	67	2	8	5	67	11	10		
6	80	8	0	6	81	7	0		
7	94	1	4	7	95	2	2		
8	107	6	8	8	108	9	4		
9	121	0	0	9	122	4	6		
10	134	5	4	10	135	11	8		
11	147	10	8	11	149	6	10		
12	161	4	0	12	163	2	0		
13	174	9	4	13	176	9	2		
14	188	2	8	14	190	4	4		
15	201	8	0	15	203	11	6		
16	215	1	4	16	217	6	9		
17	228	6	8	17	231	1	11		
18	242	0	0	18	244	9	1		
19	255	5	4	19	258	4	3		
20	268	10	8	20	271	11	5		
21	282	4	0	21	285	6	7		
22	295	9	4	22	299	1	9		
23	309	2	8	23	312	8	11		
24	322	8	0	24	326	4	1		
25	336	1	4	25	339	11	3		
26	349	6	8	26	353	6	5		
27	363	0	0	27	367	1	7		
28	376	5	4	28	380	8	9		
29	389	10	8	29	394	3	11		
30	403	4	0	30	407	11	1		
31	416	9	4	31	421	6	3		
32	430	2	8	32	435	1	6		
33	443	8	0	33	448	8	8		
34	457	1	4	34	462	3	10		
35	470	6	8	35	475	11	0		
36	484	0	0	36	489	6	2		
37	497	5	4	37	503	1	4		
38	510	10	8	38	516	8	6		
39	524	4	0	39	530	3	8		
40	537	9	4	40	543	10	10		
41	551	2	8	41	557	6	0		
42	564	8	0	42	571	1	2		
43	578	1	4	43	584	8	4		
44	591	6	8	44	598	3	6		
45	605	0	0	45	611	10	8		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	3	4	4	0	¼	3	4	9	6
½	6	8	8	0	½	6	9	7	0
¾	10	1	0	0	¾	10	2	4	6

Feet Long	Side 44½ Inches.			Feet Long	Side 44¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	13	9	0	1	13	10	10		
2	27	6	0	2	27	9	9		
3	41	3	0	3	41	8	7		
4	55	0	1	4	55	7	6		
5	68	9	1	5	69	6	4		
6	82	6	1	6	83	5	3		
7	96	3	1	7	97	4	1		
8	110	0	2	8	111	3	0		
9	123	9	2	9	125	1	11		
10	137	6	2	10	139	0	9		
11	151	3	2	11	152	11	8		
12	165	0	3	12	166	10	6		
13	178	9	3	13	180	9	5		
14	192	6	3	14	194	8	3		
15	206	3	3	15	208	7	2		
16	220	0	4	16	222	6	1		
17	233	9	4	17	236	4	11		
18	247	6	4	18	250	3	10		
19	261	3	4	19	264	2	8		
20	275	0	5	20	278	1	7		
21	288	9	5	21	292	0	5		
22	302	6	5	22	305	11	4		
23	316	3	5	23	319	10	2		
24	330	0	6	24	333	9	1		
25	343	9	6	25	347	8	0		
26	357	6	6	26	361	6	10		
27	371	3	6	27	375	5	9		
28	385	0	7	28	389	4	7		
29	398	9	7	29	403	3	6		
30	412	6	7	30	417	2	4		
31	426	3	7	31	431	1	3		
32	440	0	8	32	445	0	2		
33	453	9	8	33	458	11	0		
34	467	6	8	34	472	9	11		
35	481	3	8	35	486	8	9		
36	495	0	9	36	500	7	8		
37	508	9	9	37	514	6	6		
38	522	6	9	38	528	5	5		
39	536	3	9	39	542	4	3		
40	550	0	10	40	556	3	2		
41	563	9	10	41	570	2	1		
42	577	6	10	42	584	0	11		
43	591	3	10	43	597	11	10		
44	605	0	11	44	611	10	8		
45	618	9	11	45	625	9	7		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	3	5	3	0	¼	3	5	8	6
½	6	10	6	0	½	6	11	5	0
¾	10	3	9	0	¾	10	5	1	6

Feet Long	Side 45 $\frac{1}{2}$ Inches.			Feet Long	Side 45 Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	14	0	9	1	14	2	7		
2	28	1	6	2	28	5	3		
3	42	2	3	3	42	7	10		
4	56	3	0	4	56	10	6		
5	70	3	9	5	71	1	1		
6	84	4	6	6	85	3	9		
7	98	5	3	7	99	6	4		
8	112	6	0	8	113	9	0		
9	126	6	9	9	127	11	8		
10	140	7	6	10	142	2	3		
11	154	8	3	11	156	4	11		
12	168	9	0	12	170	7	6		
13	182	9	9	13	184	10	2		
14	196	10	6	14	199	0	9		
15	210	11	3	15	213	3	5		
16	225	0	0	16	227	6	1		
17	239	0	9	17	241	8	8		
18	253	1	6	18	255	11	4		
19	267	2	3	19	270	1	11		
20	281	3	0	20	284	4	7		
21	295	3	9	21	298	7	2		
22	309	4	6	22	312	9	10		
23	323	5	3	23	327	0	5		
24	337	6	0	24	341	3	1		
25	351	6	9	25	355	5	9		
26	365	7	6	26	369	8	4		
27	379	8	3	27	383	11	0		
28	393	9	0	28	398	1	7		
29	407	9	9	29	412	4	3		
30	421	10	6	30	426	6	10		
31	435	11	3	31	440	9	6		
32	450	0	0	32	455	0	2		
33	464	0	9	33	469	2	9		
34	478	1	6	34	483	5	5		
35	492	2	3	35	497	8	0		
36	506	3	0	36	511	10	8		
37	520	3	9	37	526	1	3		
38	534	4	6	38	540	3	11		
39	548	5	3	39	554	6	6		
40	562	6	0	40	568	9	2		
41	576	6	9	41	582	11	10		
42	590	7	6	42	597	2	5		
43	604	8	3	43	611	5	1		
44	618	9	0	44	625	7	8		
45	632	9	9	45	639	10	4		
$\frac{1}{4}$ Ft.	Ft.	In.	Pa.	S.	$\frac{1}{4}$ Ft.	Ft.	In.	Pa.	S.
$\frac{1}{4}$	3	6	2	3	$\frac{1}{4}$	3	6	7	9
$\frac{1}{2}$	7	0	4	6	$\frac{1}{2}$	7	1	3	6
$\frac{3}{4}$	10	6	6	9	$\frac{3}{4}$	10	7	11	3

Feet Long	Side 45 $\frac{1}{2}$ Inches.			Feet Long	Side 45 $\frac{3}{4}$ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	14	4	6	1	14	6	5		
2	28	9	0	2	29	0	10		
3	43	1	6	3	43	7	3		
4	57	6	1	4	58	1	8		
5	71	10	7	5	72	8	1		
6	86	3	1	6	87	2	6		
7	100	7	7	7	101	8	11		
8	115	0	2	8	116	3	4		
9	129	4	8	9	130	9	9		
10	143	9	2	10	145	4	2		
11	158	1	8	11	159	10	7		
12	172	6	3	12	174	5	0		
13	186	10	9	13	188	11	5		
14	201	3	3	14	203	5	10		
15	215	7	9	15	218	0	3		
16	230	0	4	16	232	6	9		
17	244	4	10	17	247	1	2		
18	258	9	4	18	261	7	7		
19	273	1	10	19	276	2	0		
20	287	6	5	20	290	8	5		
21	301	10	11	21	305	2	10		
22	316	3	5	22	319	9	3		
23	330	7	11	23	334	3	8		
24	345	0	6	24	348	10	1		
25	359	5	0	25	363	4	6		
26	373	9	6	26	377	10	11		
27	388	2	0	27	392	5	4		
28	402	6	7	28	406	11	9		
29	416	11	1	29	421	6	2		
30	431	3	7	30	436	0	7		
31	445	8	1	31	450	7	0		
32	460	0	8	32	465	1	6		
33	474	5	2	33	479	7	11		
34	488	9	8	34	494	2	4		
35	503	2	2	35	508	8	9		
36	517	6	9	36	523	3	2		
37	531	11	3	37	537	9	7		
38	546	3	9	38	552	4	0		
39	560	8	3	39	566	10	5		
40	575	0	10	40	581	4	10		
41	589	5	4	41	595	11	3		
42	603	9	10	42	610	5	8		
43	618	2	4	43	625	0	1		
44	632	6	11	44	639	6	6		
45	646	11	5	45	654	0	11		
$\frac{1}{4}$ Ft.	Ft.	In.	Pa.	S.	$\frac{1}{4}$ Ft.	Ft.	In.	Pa.	S.
$\frac{1}{4}$	3	7	1	6	$\frac{1}{4}$	3	7	7	3
$\frac{1}{2}$	7	2	3	0	$\frac{1}{2}$	7	3	2	6
$\frac{3}{4}$	10	9	4	6	$\frac{3}{4}$	10	10	9	9

Feet Long	Side 46 Inches.			Feet Long	Side 46½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	14	8	4	1	14	10	3		
2	29	4	8	2	29	8	6		
3	44	1	0	3	44	6	9		
4	58	9	4	4	59	5	0		
5	73	5	8	5	74	3	3		
6	88	2	0	6	89	1	6		
7	102	10	4	7	103	11	9		
8	117	6	8	8	118	10	0		
9	132	3	0	9	133	8	3		
10	146	11	4	10	148	6	6		
11	161	7	8	11	163	4	9		
12	176	4	0	12	178	3	0		
13	191	0	4	13	193	1	3		
14	205	8	8	14	207	11	6		
15	220	5	0	15	222	9	9		
16	235	1	4	16	237	8	1		
17	249	9	8	17	252	6	4		
18	264	6	0	18	267	4	7		
19	279	2	4	19	282	2	10		
20	293	10	8	20	297	1	1		
21	308	7	0	21	311	11	4		
22	323	3	4	22	326	9	7		
23	337	11	8	23	341	7	10		
24	352	8	0	24	356	6	1		
25	367	4	4	25	371	4	4		
26	382	0	8	26	386	2	7		
27	396	9	0	27	401	0	10		
28	411	5	4	28	415	11	1		
29	426	1	8	29	430	9	4		
30	440	10	0	30	445	7	7		
31	455	6	4	31	460	5	10		
32	470	2	8	32	475	4	2		
33	484	11	0	33	490	2	5		
34	499	7	4	34	505	0	8		
35	514	3	8	35	519	10	11		
36	529	0	0	36	534	9	2		
37	543	8	4	37	549	7	5		
38	558	4	8	38	564	5	8		
39	573	1	0	39	579	3	11		
40	587	9	4	40	594	2	2		
41	602	5	8	41	608	0	5		
42	617	2	0	42	623	10	8		
43	631	10	4	43	638	8	11		
44	646	6	8	44	653	7	2		
45	661	3	0	45	668	5	5		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	3	8	1	0	¼	3	8	6	9
½	7	4	2	0	½	7	5	1	6
¾	11	0	3	0	¾	11	1	8	3

Feet Long	Side 46½ Inches.			Feet Long	Side 46¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	15	0	2	1	15	2	1		
2	30	0	4	2	30	4	3		
3	45	0	6	3	45	6	4		
4	60	0	9	4	60	8	6		
5	75	0	11	5	75	10	7		
6	90	1	1	6	91	0	9		
7	105	1	3	7	106	2	10		
8	120	1	6	8	121	5	0		
9	135	1	8	9	136	7	2		
10	150	1	10	10	151	9	3		
11	165	2	0	11	166	11	5		
12	180	2	3	12	182	1	6		
13	195	2	5	13	197	3	8		
14	210	2	7	14	212	5	9		
15	225	2	9	15	227	7	11		
16	240	3	0	16	242	10	1		
17	255	3	2	17	258	0	2		
18	270	3	4	18	273	2	4		
19	285	3	6	19	288	4	5		
20	300	3	9	20	303	6	7		
21	315	3	11	21	318	8	8		
22	330	4	1	22	333	10	10		
23	345	4	3	23	349	0	11		
24	360	4	6	24	364	3	1		
25	375	4	8	25	379	5	3		
26	390	4	10	26	394	7	4		
27	405	5	0	27	409	9	6		
28	420	5	3	28	424	11	7		
29	435	5	5	29	440	1	9		
30	450	5	7	30	455	3	10		
31	465	5	9	31	470	6	0		
32	480	6	0	32	485	8	2		
33	495	6	2	33	500	10	3		
34	510	6	4	34	516	0	5		
35	525	6	6	35	531	2	6		
36	540	6	9	36	546	4	8		
37	555	6	11	37	561	6	9		
38	570	7	1	38	576	8	11		
39	585	7	3	39	591	11	0		
40	600	7	6	40	607	1	2		
41	615	7	8	41	622	3	4		
42	630	7	10	42	637	5	5		
43	645	8	0	43	652	7	7		
44	660	8	3	44	667	9	8		
45	675	8	5	45	682	11	10		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	3	9	0	6	¼	3	9	6	3
½	7	6	1	0	½	7	7	0	6
¾	11	3	1	6	¾	11	4	6	9

Feet Long	Side 47 Inches.			Feet Long	Side 47½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	15	4	1	1	15	6	0		
2	30	8	2	2	31	0	1		
3	46	0	3	3	46	6	1		
4	61	4	4	4	62	0	2		
5	76	8	5	5	77	6	2		
6	92	0	6	6	93	0	3		
7	107	4	7	7	108	6	3		
8	122	8	8	8	124	0	4		
9	138	0	9	9	139	6	5		
10	153	4	10	10	155	0	5		
11	168	8	11	11	170	6	6		
12	184	1	0	12	186	0	6		
13	199	5	1	13	201	6	7		
14	214	9	2	14	217	0	7		
15	230	1	3	15	232	6	8		
16	245	5	4	16	248	0	9		
17	260	9	5	17	263	6	9		
18	276	1	6	18	279	0	10		
19	291	5	7	19	294	6	10		
20	306	9	8	20	310	0	11		
21	322	1	9	21	325	6	11		
22	337	5	10	22	341	1	0		
23	352	9	11	23	356	7	0		
24	368	2	0	24	372	1	1		
25	383	6	1	25	387	7	2		
26	398	10	2	26	403	1	2		
27	414	2	3	27	418	7	3		
28	429	6	4	28	434	1	3		
29	444	10	5	29	449	7	4		
30	460	2	6	30	465	1	4		
31	475	6	7	31	480	7	5		
32	490	10	8	32	496	1	6		
33	506	2	9	33	511	7	6		
34	521	6	10	34	527	1	7		
35	536	10	11	35	542	7	7		
36	552	3	0	36	558	1	8		
37	567	7	1	37	573	7	8		
38	582	11	2	38	589	1	9		
39	598	3	3	39	604	7	9		
40	613	7	4	40	620	1	10		
41	628	11	5	41	635	7	11		
42	644	3	6	42	651	1	11		
43	659	7	7	43	666	8	0		
44	674	11	8	44	682	2	0		
45	690	3	9	45	697	8	1		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	3	10	0	3	¼	3	10	6	0
½	7	8	0	6	½	7	9	0	0
¾	11	6	0	9	¾	11	7	6	0

Feet Long	Side 47½ Inches.			Feet Long	Side 47¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	15	8	0	1	15	10	0		
2	31	4	0	2	31	8	0		
3	47	0	0	3	47	6	0		
4	62	8	1	4	63	4	0		
5	78	4	1	5	79	2	0		
6	94	0	1	6	95	0	0		
7	109	8	1	7	110	10	0		
8	125	4	2	8	126	8	0		
9	141	0	2	9	142	6	0		
10	156	8	2	10	158	4	0		
11	172	4	2	11	174	2	0		
12	188	0	3	12	190	0	0		
13	203	8	3	13	205	10	0		
14	219	4	3	14	221	8	0		
15	235	0	3	15	237	6	0		
16	250	8	4	16	253	4	1		
17	266	4	4	17	269	2	1		
18	282	0	4	18	285	0	1		
19	297	8	4	19	300	10	1		
20	313	4	5	20	316	8	1		
21	329	0	5	21	332	6	1		
22	344	8	5	22	348	4	1		
23	360	4	5	23	364	2	1		
24	376	0	6	24	380	0	1		
25	391	8	6	25	395	10	1		
26	407	4	6	26	411	8	1		
27	423	0	6	27	427	6	1		
28	438	8	7	28	443	4	1		
29	454	4	7	29	459	2	1		
30	470	0	7	30	475	0	1		
31	485	8	7	31	490	10	1		
32	501	4	8	32	506	8	2		
33	517	0	8	33	522	6	2		
34	532	8	8	34	538	4	2		
35	548	4	8	35	554	2	2		
36	564	0	9	36	570	0	2		
37	579	8	9	37	585	10	2		
38	595	4	9	38	601	8	2		
39	611	0	9	39	617	6	2		
40	626	8	10	40	633	4	2		
41	642	4	10	41	649	2	2		
42	658	0	10	42	665	0	2		
43	673	8	10	43	680	10	2		
44	689	4	11	44	696	8	2		
45	705	0	11	45	712	6	2		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	3	11	0	0	¼	3	11	6	0
½	7	10	0	0	½	7	11	0	0
¾	11	9	0	0	¾	11	10	6	0

Feet Long	Side 48 Inches.			Feet Long	Side 48½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	16	0	0	1	16	2	0		
2	32	0	0	2	32	4	0		
3	48	0	0	3	48	6	0		
4	64	0	0	4	64	8	0		
5	80	0	0	5	80	10	0		
6	96	0	0	6	97	0	0		
7	112	0	0	7	113	2	0		
8	128	0	0	8	129	4	0		
9	144	0	0	9	145	6	0		
10	160	0	0	10	161	8	0		
11	176	0	0	11	177	10	0		
12	192	0	0	12	194	0	0		
13	208	0	0	13	210	2	0		
14	224	0	0	14	226	4	0		
15	240	0	0	15	242	6	0		
16	256	0	0	16	258	8	1		
17	272	0	0	17	274	10	1		
18	288	0	0	18	291	0	1		
19	304	0	0	19	307	2	1		
20	320	0	0	20	323	4	1		
21	336	0	0	21	339	6	1		
22	352	0	0	22	355	8	1		
23	368	0	0	23	371	10	1		
24	384	0	0	24	388	0	1		
25	400	0	0	25	404	2	1		
26	416	0	0	26	420	4	1		
27	432	0	0	27	436	6	1		
28	448	0	0	28	452	8	1		
29	464	0	0	29	468	10	1		
30	480	0	0	30	485	0	1		
31	496	0	0	31	501	2	1		
32	512	0	0	32	517	4	2		
33	528	0	0	33	533	6	2		
34	544	0	0	34	549	8	2		
35	560	0	0	35	565	10	2		
36	576	0	0	36	582	0	2		
37	592	0	0	37	598	2	2		
38	608	0	0	38	614	4	2		
39	624	0	0	39	630	6	2		
40	640	0	0	40	646	8	2		
41	656	0	0	41	662	10	2		
42	672	0	0	42	679	0	2		
43	688	0	0	43	695	2	2		
44	704	0	0	44	711	4	2		
45	720	0	0	45	727	6	2		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	4	0	0	0	¼	4	0	6	0
½	8	0	0	0	½	8	1	0	0
¾	12	0	0	0	¾	12	1	6	0

Feet Long	Side 48½ Inches.			Feet Long	Side 48¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	16	4	0	1	16	6	0		
2	32	8	0	2	33	0	1		
3	49	0	0	3	49	6	1		
4	65	4	1	4	66	0	2		
5	81	8	1	5	82	6	2		
6	98	0	1	6	99	0	3		
7	114	4	1	7	115	6	3		
8	130	8	2	8	132	0	4		
9	147	0	2	9	148	6	5		
10	163	4	2	10	165	0	5		
11	179	8	2	11	181	6	6		
12	196	0	3	12	198	0	6		
13	212	4	3	13	214	6	7		
14	228	8	3	14	230	0	7		
15	245	0	3	15	247	6	8		
16	261	4	4	16	264	0	9		
17	277	8	4	17	280	6	9		
18	294	0	4	18	297	0	10		
19	310	4	4	19	313	6	10		
20	326	8	5	20	330	0	11		
21	343	0	5	21	346	6	11		
22	359	4	5	22	363	1	0		
23	375	8	5	23	379	7	0		
24	392	0	6	24	396	1	1		
25	408	4	6	25	412	7	2		
26	424	8	6	26	429	1	2		
27	441	0	6	27	445	7	3		
28	457	4	7	28	462	1	3		
29	473	8	7	29	478	7	4		
30	490	0	7	30	495	1	4		
31	506	4	7	31	511	7	5		
32	522	8	8	32	528	1	6		
33	539	0	8	33	544	7	6		
34	555	4	8	34	561	1	7		
35	571	8	8	35	577	7	7		
36	588	0	9	36	594	1	8		
37	604	4	9	37	610	7	8		
38	620	8	9	38	627	1	9		
39	637	0	9	39	643	7	9		
40	653	4	10	40	660	1	10		
41	669	8	10	41	676	7	11		
42	686	0	10	42	693	1	11		
43	702	4	10	43	709	8	0		
44	718	8	11	44	726	2	0		
45	735	0	11	45	742	8	1		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	4	1	0	0	¼	4	1	6	0
½	8	2	0	0	½	8	3	0	0
¾	12	3	0	0	¾	12	4	6	0

Feet Long	Side 49 Inches.			Feet Long	Side 49½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	16	8	1	1	16	10	1		
2	33	4	2	2	33	8	3		
3	50	0	3	3	50	6	4		
4	66	8	4	4	67	4	6		
5	83	4	5	5	84	2	7		
6	100	0	6	6	101	0	9		
7	116	8	7	7	117	10	10		
8	133	4	8	8	134	9	0		
9	150	0	8	9	150	7	2		
10	166	8	10	10	168	5	3		
11	183	4	11	11	185	3	5		
12	200	1	0	12	202	1	6		
13	216	9	1	13	218	11	8		
14	233	5	2	14	235	9	9		
15	250	1	3	15	252	7	11		
16	266	9	4	16	279	6	1		
17	283	5	5	17	286	4	2		
18	300	1	6	18	303	2	4		
19	316	9	7	19	320	0	5		
20	333	5	8	20	336	10	7		
21	350	1	9	21	353	8	8		
22	366	9	10	22	370	6	10		
23	383	5	11	23	387	4	11		
24	400	2	0	24	404	3	1		
25	416	10	1	25	421	1	3		
26	433	6	2	26	437	11	4		
27	450	2	3	27	454	9	6		
28	466	10	4	28	471	7	7		
29	483	6	5	29	488	5	9		
30	500	2	6	30	505	3	10		
31	516	10	7	31	522	2	0		
32	533	6	8	32	539	0	2		
33	550	2	9	33	555	10	3		
34	566	10	10	34	572	8	5		
35	583	6	11	35	589	6	6		
36	600	3	0	36	606	4	8		
37	616	11	1	37	623	2	9		
38	633	7	2	38	640	0	11		
39	650	3	3	39	656	11	0		
40	666	11	4	40	673	9	2		
41	683	7	5	41	690	7	4		
42	700	3	6	42	707	5	5		
43	716	11	7	43	724	3	7		
44	733	7	8	44	741	1	8		
45	750	3	9	45	757	11	10		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	4	2	0	3	¼	4	2	6	3
½	8	4	0	6	½	8	5	0	6
¾	12	6	0	9	¾	12	7	6	9

Feet Long	Side 49½ Inches.			Feet Long	Side 49¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	17	0	2	1	17	2	3		
2	34	0	4	2	34	4	6		
3	51	0	6	3	51	6	9		
4	68	0	9	4	68	9	0		
5	85	0	11	5	85	11	3		
6	102	1	1	6	103	1	6		
7	119	1	3	7	120	3	9		
8	136	1	6	8	137	6	0		
9	153	1	8	9	154	8	3		
10	170	1	10	10	171	10	6		
11	187	2	0	11	189	0	9		
12	204	2	3	12	206	3	0		
13	221	2	5	13	223	5	3		
14	238	2	7	14	240	7	6		
15	255	2	9	15	257	9	9		
16	272	3	0	16	275	0	1		
17	289	3	2	17	293	2	4		
18	306	3	4	18	300	4	7		
19	323	3	6	19	326	6	10		
20	340	3	9	20	343	9	1		
21	357	3	11	21	360	11	4		
22	374	4	1	22	378	1	7		
23	391	4	3	23	395	3	10		
24	408	4	6	24	412	6	1		
25	425	4	8	25	429	8	4		
26	442	4	10	26	446	10	7		
27	459	5	0	27	464	0	10		
28	476	5	3	28	481	3	1		
29	493	5	5	29	498	5	4		
30	510	5	7	30	515	7	7		
31	527	5	9	31	532	9	10		
32	544	6	0	32	550	0	2		
33	561	6	2	33	567	2	5		
34	578	6	4	34	584	4	8		
35	595	6	6	35	601	6	11		
36	612	6	9	36	618	9	2		
37	629	6	11	37	635	11	5		
38	646	7	1	38	653	1	8		
39	663	7	3	39	670	3	11		
40	680	7	6	40	687	6	2		
41	697	7	8	41	704	8	5		
42	714	7	10	42	721	10	8		
43	731	8	0	43	739	0	11		
44	748	8	3	44	756	3	2		
45	765	8	5	45	773	5	5		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	4	3	0	6	¼	4	3	6	9
½	8	6	1	0	½	8	7	1	6
¾	12	9	1	6	¾	12	10	8	3

Feet Long	Side 50 Inches.			Feet Long	Side 50½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	17	4	4	1	17	6	5		
2	34	8	8	2	35	0	10		
3	52	1	0	3	52	7	3		
4	69	5	4	4	70	1	8		
5	86	9	8	5	87	8	1		
6	104	2	0	6	105	2	6		
7	121	6	4	7	122	8	11		
8	138	10	8	8	140	3	4		
9	156	3	0	9	157	9	9		
10	173	7	4	10	175	4	2		
11	190	11	8	11	192	10	7		
12	208	4	0	12	210	5	0		
13	225	8	4	13	227	11	5		
14	243	0	8	14	245	5	10		
15	260	5	0	15	263	0	3		
16	277	9	4	16	280	6	9		
17	295	1	8	17	298	1	2		
18	312	6	0	18	315	7	7		
19	329	10	4	19	333	2	0		
20	347	2	8	20	350	8	5		
21	364	7	0	21	368	2	10		
22	381	11	4	22	385	9	3		
23	399	3	8	23	403	3	8		
24	416	8	0	24	420	10	1		
25	434	0	4	25	438	4	6		
26	451	4	8	26	455	10	11		
27	468	9	0	27	473	5	4		
28	486	1	4	28	490	11	9		
29	503	5	8	29	508	6	2		
30	520	10	0	30	526	0	7		
31	538	2	4	31	543	7	0		
32	555	6	8	32	561	1	6		
33	572	11	0	33	578	7	11		
34	590	3	4	34	596	2	4		
35	607	7	8	35	613	8	9		
36	625	0	0	36	631	3	2		
37	642	4	4	37	648	9	7		
38	659	8	8	38	666	4	0		
39	677	1	0	39	683	10	5		
40	694	5	4	40	701	4	10		
41	711	9	8	41	718	11	3		
42	729	2	0	42	736	5	8		
43	746	6	4	43	754	0	1		
44	763	10	8	44	771	6	6		
45	781	3	0	45	789	0	11		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	4	4	1	0	¼	4	4	7	3
½	8	8	2	0	½	8	9	2	6
¾	13	0	3	0	¾	13	1	9	9

Feet Long	Side 50½ Inches.			Feet Long	Side 50¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	17	8	6	1	17	10	7		
2	35	5	0	2	35	9	3		
3	53	1	6	3	53	7	10		
4	70	10	1	4	71	6	6		
5	88	6	7	5	89	5	1		
6	106	3	1	6	107	3	9		
7	123	11	7	7	125	2	4		
8	141	8	2	8	143	1	0		
9	159	4	8	9	160	11	8		
10	177	1	2	10	178	10	3		
11	194	9	8	11	196	8	11		
12	212	6	3	12	214	7	6		
13	230	2	9	13	232	6	2		
14	247	11	3	14	250	4	9		
15	265	7	9	15	268	3	5		
16	283	4	4	16	286	2	1		
17	301	0	10	17	304	0	8		
18	318	9	4	18	321	11	4		
19	336	5	10	19	339	9	11		
20	354	2	5	20	357	8	7		
21	371	10	11	21	375	7	2		
22	389	7	5	22	393	5	10		
23	407	3	11	23	411	4	5		
24	425	0	6	24	429	3	1		
25	442	9	0	25	447	1	9		
26	460	5	6	26	465	0	4		
27	478	2	0	27	483	11	0		
28	495	10	7	28	500	9	7		
29	513	7	1	29	518	8	3		
30	531	3	7	30	536	6	10		
31	549	0	1	31	554	5	6		
32	566	8	8	32	572	4	2		
33	584	5	2	33	590	2	9		
34	602	1	8	34	608	1	5		
35	619	10	2	35	626	0	0		
36	637	6	9	36	643	10	8		
37	655	3	3	37	661	9	3		
38	672	11	9	38	679	7	11		
39	690	8	3	39	697	6	6		
40	708	4	10	40	715	5	2		
41	726	1	4	41	733	3	10		
42	743	9	10	42	751	2	5		
43	761	6	4	43	769	0	1		
44	779	2	11	44	786	11	8		
45	796	11	5	45	804	10	4		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	4	5	1	6	¼	4	5	7	9
½	8	10	3	0	½	8	11	3	6
¾	13	3	4	6	¾	13	4	11	3

Feet Long	Side 51 Inches			Feet Long	Side 51½ Inches				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	18	0	9	1	18	2	10		
2	36	1	6	2	36	5	9		
3	54	2	3	3	54	8	7		
4	72	3	0	4	72	11	6		
5	90	3	9	5	91	2	4		
6	108	4	6	6	109	5	3		
7	126	5	3	7	127	8	1		
8	144	6	0	8	145	11	0		
9	162	6	9	9	164	1	11		
10	180	7	6	10	182	4	9		
11	198	8	3	11	200	7	8		
12	216	9	0	12	218	10	6		
13	234	9	9	13	237	1	5		
14	252	10	6	14	255	4	3		
15	270	11	3	15	273	7	2		
16	289	0	0	16	291	10	1		
17	307	0	9	17	310	0	11		
18	325	1	6	18	328	3	10		
19	343	2	3	19	346	6	8		
20	361	3	0	20	364	9	7		
21	379	3	9	21	383	0	5		
22	397	4	6	22	401	3	4		
23	415	5	3	23	419	6	2		
24	433	6	0	24	437	9	1		
25	451	6	9	25	456	0	0		
26	469	7	6	26	474	2	10		
27	487	8	3	27	492	5	9		
28	505	9	0	28	510	8	7		
29	523	9	9	29	528	11	6		
30	541	10	6	30	547	2	4		
31	559	11	3	31	565	5	3		
32	578	0	0	32	583	8	2		
33	596	0	9	33	601	11	0		
34	614	1	6	34	620	1	11		
35	632	2	3	35	638	4	9		
36	650	3	0	36	656	7	8		
37	668	3	9	37	674	10	6		
38	686	4	6	38	693	1	5		
39	704	5	3	39	711	4	3		
40	722	6	0	40	729	7	2		
41	740	6	9	41	747	10	1		
42	758	7	6	42	766	0	11		
43	776	8	3	43	784	3	10		
44	794	9	0	44	802	6	8		
45	812	9	9	45	820	9	7		
$\frac{1}{2}$ Ft.	Ft.	In.	Pa.	S.	$\frac{1}{2}$ Ft.	Ft.	In.	Pa.	S.
$\frac{1}{4}$	4	6	2	3	$\frac{1}{4}$	4	6	8	6
$\frac{1}{2}$	9	0	4	6	$\frac{1}{2}$	9	1	5	0
$\frac{3}{4}$	13	6	6	9	$\frac{3}{4}$	13	8	1	6

Feet Long	Side 51½ Inches.			Feet Long	Side 51¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	18	5	0	1	18	7	1		
2	36	10	0	2	37	2	2		
3	55	3	0	3	55	9	3		
4	73	8	1	4	74	4	4		
5	92	1	1	5	92	11	5		
6	110	6	1	6	111	6	6		
7	128	11	1	7	130	1	7		
8	147	4	2	8	148	8	8		
9	165	9	2	9	167	3	9		
10	184	2	2	10	185	10	10		
11	202	7	2	11	204	5	11		
12	221	0	3	12	223	1	0		
13	239	5	3	13	241	8	1		
14	257	10	3	14	260	3	2		
15	276	3	3	15	278	10	3		
16	294	8	4	16	297	5	5		
17	313	1	4	17	316	0	6		
18	331	6	4	18	334	7	7		
19	349	11	4	19	353	2	8		
20	368	4	5	20	371	9	9		
21	386	9	5	21	390	4	10		
22	405	2	5	22	408	11	11		
23	423	7	5	23	427	7	0		
24	442	0	6	24	446	2	1		
25	460	5	6	25	464	9	2		
26	478	10	6	26	483	4	3		
27	497	3	6	27	501	11	4		
28	515	8	7	28	520	6	5		
29	534	1	7	29	539	1	6		
30	552	6	7	30	557	8	7		
31	570	11	7	31	576	3	8		
32	589	4	8	32	594	10	10		
33	607	9	8	33	613	5	11		
34	626	2	8	34	632	1	0		
35	644	7	8	35	650	8	1		
36	663	0	9	36	669	3	2		
37	681	5	9	37	687	10	3		
38	699	10	9	38	706	5	4		
39	718	3	9	39	725	0	5		
40	736	8	10	40	743	7	6		
41	755	1	10	41	762	2	7		
42	773	6	10	42	780	9	8		
43	791	11	10	43	796	4	9		
44	810	4	11	44	817	11	10		
45	828	9	11	45	836	6	11		
$\frac{1}{2}$ Ft.	Ft.	In.	Pa.	S.	$\frac{1}{2}$ Ft.	Ft.	In.	Pa.	S.
$\frac{1}{4}$	4	7	3	0	$\frac{1}{4}$	4	7	9	3
$\frac{1}{2}$	9	2	6	0	$\frac{1}{2}$	9	3	6	6
$\frac{3}{4}$	13	9	9	0	$\frac{3}{4}$	13	11	3	9

Feet Long	Side 52 Inches.			Feet Long	Side 52½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	18	9	4	1	18	11	6		
2	37	6	8	2	37	11	0		
3	56	4	0	3	56	10	6		
4	75	1	4	4	75	10	0		
5	93	10	8	5	94	9	6		
6	112	8	0	6	113	9	0		
7	131	5	4	7	132	8	6		
8	150	2	8	8	151	8	0		
9	169	0	0	9	170	7	6		
10	187	9	4	10	189	7	0		
11	206	6	8	11	208	6	6		
12	225	4	0	12	227	6	0		
13	244	1	4	13	246	5	6		
14	262	10	8	14	265	5	0		
15	281	8	0	15	284	4	6		
16	300	5	4	16	303	4	1		
17	319	2	8	17	322	3	7		
18	338	0	0	18	341	3	1		
19	356	9	4	19	360	2	7		
20	375	6	8	20	379	2	1		
21	394	4	0	21	398	1	7		
22	413	1	4	22	417	1	1		
23	431	10	8	23	436	0	7		
24	450	8	0	24	455	0	1		
25	469	5	4	25	473	11	7		
26	488	2	8	26	492	11	1		
27	507	0	0	27	511	10	7		
28	525	9	4	28	530	10	1		
29	544	6	8	29	549	9	7		
30	563	4	0	30	568	9	1		
31	582	1	4	31	587	8	7		
32	600	10	8	32	606	8	2		
33	619	8	0	33	625	7	8		
34	638	5	4	34	644	7	2		
35	657	2	8	35	663	6	8		
36	676	0	0	36	682	6	2		
37	694	9	4	37	701	5	8		
38	713	6	8	38	720	5	2		
39	732	4	0	39	739	4	8		
40	751	1	4	40	758	4	2		
41	769	10	8	41	777	3	8		
42	788	8	0	42	796	3	2		
43	807	5	4	43	815	2	8		
44	826	2	8	44	834	2	2		
45	845	0	0	45	853	1	8		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	4	8	4	0	¼	4	8	10	6
½	9	4	8	0	½	9	5	9	0
¾	14	1	0	0	¾	14	2	7	6

Feet Long	Side 52½ Inches.			Feet Long	Side 52¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	19	1	8	1	19	3	10		
2	38	3	4	2	38	7	9		
3	57	5	0	3	57	11	7		
4	76	6	9	4	77	3	6		
5	95	8	5	5	96	7	4		
6	114	10	1	6	115	11	3		
7	133	11	9	7	135	3	1		
8	153	1	6	8	154	7	0		
9	172	3	2	9	173	10	11		
10	191	4	10	10	193	2	9		
11	210	6	6	11	212	6	8		
12	229	8	3	12	231	10	6		
13	248	9	11	13	251	2	5		
14	267	11	7	14	270	6	3		
15	286	1	3	15	289	10	2		
16	305	3	0	16	309	2	1		
17	324	4	8	17	328	5	11		
18	344	6	4	18	347	9	10		
19	363	8	0	19	367	1	8		
20	382	9	9	20	386	5	7		
21	401	11	5	21	405	9	5		
22	421	1	1	22	425	1	4		
23	440	2	9	23	444	5	2		
24	459	4	6	24	463	9	1		
25	478	6	2	25	483	1	0		
26	497	7	10	26	502	4	10		
27	516	9	6	27	521	8	9		
28	535	11	3	28	541	0	7		
29	555	0	11	29	560	4	6		
30	574	2	7	30	579	8	4		
31	593	4	3	31	599	0	3		
32	612	6	0	32	618	4	2		
33	631	7	8	33	637	8	0		
34	650	9	4	34	656	11	11		
35	669	11	0	35	676	3	9		
36	689	0	9	36	695	7	8		
37	708	2	5	37	714	11	6		
38	727	4	1	38	734	3	5		
39	746	5	9	39	753	7	3		
40	765	7	6	40	772	11	2		
41	784	9	2	41	792	3	1		
42	803	10	10	42	811	6	11		
43	823	0	6	43	830	10	10		
44	842	2	3	44	850	2	8		
45	861	3	11	45	869	6	7		
¼ Ft.	Ft.	In.	Pa.	S.	¼ Ft.	Ft.	In.	Pa.	S.
¼	4	9	5	0	¼	4	9	11	6
½	9	6	10	0	½	9	7	11	0
¾	14	4	3	0	¾	14	5	10	6

Feet Long	Side 53 Inches.			Feet Long	Side 53½ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	19	6	1	1	19	8	3		
2	39	0	2	2	39	4	7		
3	58	6	3	3	59	0	10		
4	78	0	4	4	78	9	2		
5	97	6	5	5	98	5	5		
6	117	0	6	6	118	1	9		
7	136	6	7	7	137	10	0		
8	156	0	8	8	157	6	4		
9	175	6	9	9	177	2	8		
10	195	0	10	10	196	10	11		
11	214	6	11	11	216	7	3		
12	234	1	0	12	236	3	6		
13	253	7	1	13	255	11	10		
14	273	1	2	14	275	8	1		
15	292	7	3	15	295	4	5		
16	312	1	4	16	315	0	9		
17	331	7	5	17	334	9	0		
18	351	1	6	18	354	5	4		
19	370	7	7	19	374	1	7		
20	390	1	8	20	303	9	11		
21	409	7	9	21	413	6	2		
22	429	1	10	22	433	2	6		
23	448	7	11	23	452	10	9		
24	468	2	0	24	472	7	1		
25	487	8	1	25	492	3	5		
26	507	2	2	26	511	11	8		
27	526	8	3	27	531	8	0		
28	546	2	4	28	551	4	3		
29	565	8	5	29	571	0	7		
30	585	2	6	30	590	8	10		
31	604	8	7	31	610	5	2		
32	624	2	8	32	630	1	6		
33	643	8	9	33	649	9	9		
34	663	2	10	34	669	6	1		
35	682	8	11	35	689	2	4		
36	702	3	0	36	708	10	8		
37	721	9	1	37	728	6	11		
38	741	3	2	38	748	3	3		
39	760	9	3	39	767	11	6		
40	780	3	4	40	787	7	10		
41	799	9	5	41	807	4	2		
42	819	3	6	42	827	0	5		
43	838	9	7	43	846	8	9		
44	858	3	8	44	866	5	0		
45	877	9	9	45	886	1	4		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	4	10	6	3	¼	4	11	0	9
½	9	9	0	6	½	9	10	1	6
¾	14	7	6	9	¾	14	9	2	3

Feet Long	Side 53½ Inches.			Feet Long	Side 53¾ Inches.				
	Ft.	In.	Pa.		Ft.	In.	Pa.		
1	19	10	6	1	20	0	9		
2	39	9	0	2	40	1	6		
3	59	7	6	3	60	2	3		
4	79	6	1	4	80	3	0		
5	99	4	7	5	100	3	9		
6	119	3	1	6	120	4	6		
7	139	1	7	7	140	5	3		
8	159	0	2	8	160	6	0		
9	178	10	8	9	180	6	9		
10	198	9	2	10	200	7	6		
11	218	7	8	11	220	8	3		
12	238	6	3	12	240	9	0		
13	258	4	9	13	260	9	9		
14	278	3	3	14	280	10	6		
15	298	1	9	15	300	11	3		
16	318	0	4	16	321	0	1		
17	337	10	10	17	341	0	10		
18	357	9	4	18	361	1	7		
19	377	7	10	19	381	2	4		
20	397	6	5	20	401	3	1		
21	417	4	11	21	421	3	10		
22	437	3	5	22	441	4	7		
23	457	1	11	23	461	5	4		
24	477	0	6	24	481	6	1		
25	496	11	0	25	501	6	10		
26	516	9	6	26	521	7	7		
27	536	8	0	27	541	8	4		
28	556	6	7	28	561	9	1		
29	576	5	1	29	581	9	10		
30	596	3	7	30	601	10	7		
31	616	2	1	31	621	11	4		
32	636	0	8	32	642	0	2		
33	655	11	2	33	662	0	11		
34	675	9	8	34	682	1	8		
35	695	8	2	35	702	2	5		
36	715	6	9	36	722	3	2		
37	735	5	3	37	742	3	11		
38	755	3	9	38	762	4	8		
39	775	2	3	39	782	5	5		
40	795	0	10	40	802	6	2		
41	814	11	4	41	822	6	11		
42	834	9	10	42	842	7	8		
43	854	8	4	43	862	8	5		
44	874	6	11	44	882	9	2		
45	894	5	5	45	902	9	11		
½ Ft.	Ft.	In.	Pa.	S.	½ Ft.	Ft.	In.	Pa.	S.
¼	4	11	7	6	¼	5	0	2	3
½	9	11	3	0	½	10	0	4	6
¾	14	10	10	6	¾	15	0	6	9

Feet Long	Side 54 Inches.			
	Ft.	In.	Pa.	
1	20	3	0	
2	40	6	0	
3	60	9	0	
4	81	0	0	
5	101	3	0	
6	121	6	0	
7	141	9	0	
8	162	0	0	
9	182	3	0	
10	202	6	0	
11	222	9	0	
12	243	0	0	
13	263	3	0	
14	283	6	0	
15	303	9	0	
16	324	0	0	
17	344	3	0	
18	364	6	0	
19	384	9	0	
20	405	0	0	
21	425	3	0	
22	445	6	0	
23	465	9	0	
24	486	0	0	
25	506	3	0	
26	526	6	0	
27	546	9	0	
28	567	0	0	
29	587	3	0	
30	607	6	0	
31	627	9	0	
32	648	0	0	
33	668	3	0	
34	688	6	0	
35	708	9	0	
36	729	0	0	
37	749	3	0	
38	769	6	0	
39	789	9	0	
40	810	0	0	
41	830	3	0	
42	850	6	0	
43	870	9	0	
44	891	0	0	
45	911	3	0	
$\frac{1}{2}$ Ft.	Ft.	In.	Pa.	S.
$\frac{1}{4}$	5	0	9	0
$\frac{1}{2}$	10	1	6	0
$\frac{3}{4}$	15	2	3	0

THE
EXPLANATION AND USE

OF THE FOUR FOLLOWING

T A B L E S

FOR FINDING

THE VALUE, PER FOOT CUBE,

OF

TIMBER, STONE, &c.

CUT TO ANY SIZE OR SCANTLING.

THOUGH these tables are six in number, yet being all of the same nature, and only differing in price, if I explain and show the use of one, the other five will be understood of course. And whoever understands the use of the table of unequal-sided timber, on page 12, can need very little instruction to understand these, which are much of the same nature.

I. At the beginning of the table at 1s. 6d. per foot cube (page 162), betwixt 2 parallel lines, stands 2 inches square, which is the thickness of the lesser side of the piece you would find the value of, and under the said parallel lines are three rows of figures. In that column to the left hand divided from the other two by a black line, is the breadth, or larger side of the piece to be valued.

II. The second and third rows of figures (which stand opposite the breadths, or larger sides, in the first column) show the value of one foot in length in pence and the eighth part of

a penny, in the tables at 1s. 6d. 2s. and 2s. 6d.; but in the tables from 3s. to 4s. the value is given in pence and farthings.

EXAMPLE I.

What is the value of one foot in length of a piece of timber, stone, &c. whose size or scantling is 6 inches by 9 inches, at 18d. per foot cube.

In the table at 1s. 6d. look for 6 inches square betwixt the parallel lines, keeping your eye down the left hand column till you come to 9 inches, and opposite it stands 6 : 6, which signifies 6 $\frac{3}{4}$ d. (six-eighths of a penny being equal to 3 farthings) the value sought.

EXAMPLE II.

What is the value of 1 foot in length of a piece of timber, stone, &c. whose size or scantling is 6 $\frac{1}{2}$ inches by 9 $\frac{1}{2}$ inches, at 18d. per foot cube?

In the table at 1s. 6d. look for 6 $\frac{1}{2}$ inches square in the parallel lines, keeping your eye down the left-hand column until you come to 9 $\frac{1}{2}$ inches, and opposite it stands 7 ; 5, which signifies 7d. and 5 half farthings, the value sought.

	<i>s. d.</i>		<i>d.</i>
By the table at	}	20	}
		26	
		30	
		the value will	10 $\frac{1}{4}$
		be found to	12 $\frac{3}{4}$
		be	15 $\frac{1}{4}$

Note.—By observing the following directions these six tables may be made as useful for valuing timber, stone, &c. at any other price per foot cube, as for those prices at which they are calculated.

<p>If you want the price at</p> <table style="border: none;"> <tr><td style="text-align: center;">3s</td><td style="text-align: center;">6d</td></tr> <tr><td style="text-align: center;">4</td><td style="text-align: center;">0</td></tr> <tr><td style="text-align: center;">4</td><td style="text-align: center;">6</td></tr> <tr><td style="text-align: center;">5</td><td style="text-align: center;">0</td></tr> <tr><td style="text-align: center;">5</td><td style="text-align: center;">6</td></tr> <tr><td style="text-align: center;">6</td><td style="text-align: center;">0</td></tr> <tr><td style="text-align: center;">6</td><td style="text-align: center;">6</td></tr> <tr><td style="text-align: center;">7</td><td style="text-align: center;">0</td></tr> </table>	3s	6d	4	0	4	6	5	0	5	6	6	0	6	6	7	0	<p>per foot cube</p> <table style="border: none;"> <tr><td style="text-align: center;">1s</td><td style="text-align: center;">6d</td></tr> <tr><td style="text-align: center;">2</td><td style="text-align: center;">0</td></tr> <tr><td style="text-align: center;">2</td><td style="text-align: center;">6</td></tr> </table>	1s	6d	2	0	2	6	<p>per foot cube, take half the value at</p> <table style="border: none;"> <tr><td style="text-align: center;">0s</td><td style="text-align: center;">9d</td></tr> <tr><td style="text-align: center;">1</td><td style="text-align: center;">0</td></tr> <tr><td style="text-align: center;">1</td><td style="text-align: center;">3</td></tr> </table>	0s	9d	1	0	1	3
3s	6d																													
4	0																													
4	6																													
5	0																													
5	6																													
6	0																													
6	6																													
7	0																													
1s	6d																													
2	0																													
2	6																													
0s	9d																													
1	0																													
1	3																													
<p>Add the value at 1s. 6d. to the value at 2s. and that is the value at 3s. 6d. Double the value at 2s. and that is the value at 4s. Add the value at 2s. to the value at 2s. 6d. and that is the value at 4s. 6d. Double the value at 2s. 6d. and that is the value at 5s. Add the value at 2s. 6d. to the value at 3s. and that is the value at 5s. 6d. Double the value at 3s. and that is the value at 6s. Add the value at 3s. to the value at 3s. 6d. and that is the value at 6s. 6d. Double the value at 3s. 6d. and that is the value at 7s.</p>	<p>and that is the value at</p> <table style="border: none;"> <tr><td style="text-align: center;">0s</td><td style="text-align: center;">9d</td></tr> <tr><td style="text-align: center;">1</td><td style="text-align: center;">0</td></tr> <tr><td style="text-align: center;">1</td><td style="text-align: center;">3</td></tr> </table>	0s	9d	1	0	1	3	<p>Of the value at 2s. per foot, and you have the value sought.</p>																						
0s	9d																													
1	0																													
1	3																													
<p>per foot cube more than the price any of the tables are calculated for, for</p> <table style="border: none;"> <tr><td style="text-align: center;">2d</td></tr> <tr><td style="text-align: center;">3</td></tr> <tr><td style="text-align: center;">4</td></tr> <tr><td style="text-align: center;">6</td></tr> </table>	2d	3	4	6	<p>Add to the value in that table</p> <table style="border: none;"> <tr><td style="text-align: center;">1-12th</td></tr> <tr><td style="text-align: center;">1-8th</td></tr> <tr><td style="text-align: center;">1-6th</td></tr> <tr><td style="text-align: center;">1-4th</td></tr> </table>	1-12th	1-8th	1-6th	1-4th	<p>Of the value at 2s. per foot, and you have the value sought.</p>																				
2d																														
3																														
4																														
6																														
1-12th																														
1-8th																														
1-6th																														
1-4th																														

** If you want a price less than any of the tables are calculated for, deduct from the value in that table.

If you should ever want to find the value of one foot in length of a piece of timber, stone, &c., whose size or scantling is larger than the extent of these tables, this is the

RULE.

Consider at what price per foot cube, you would value it by, then seek in that table for the value of one foot of timber or stone, whose scantlings are each of them but equal to half the given scantlings, and four times that price is the value sought. [See Example VI. page 36.]

EXAMPLE III.

What is the value of one foot in length of a piece of timber or stone, &c. whose scantling is 14 inches by 20, at 18*d.* per foot cube?

Here you are first to consider that half the given scantling is 7 by 10; then in the table at 18*d.* per foot cube, you are to look betwixt the parallel lines for 7 inches square, keeping your eye down the left-hand column till you come to 10 inches, opposite which stands 8 : 6, signifying 8 $\frac{3}{4}$ *d.* and four times 8 $\frac{3}{4}$ *d.* is 2*s.* 11*d.* which is the value of one foot in length, whose scantling is 14 inches by 20, at the rate of 18*d.* per foot cube.

By the table at $\left. \begin{matrix} 2 & 0 \\ 2 & 6 \\ 3 & 0 \end{matrix} \right\}$ the value will be found to be $\left. \begin{matrix} 3 & 10\frac{1}{2} \\ 4 & 10 \\ 5 & 10 \end{matrix} \right\}$

Note.—When you are about to value timber, stone, &c. per foot cube, you are carefully to consider that by reason of the length of carriage, the price of workmen's wages, &c., they are rendered much dearer in some places than they are in others, and therefore they must be valued at a price accordingly.

NEW TABLES,

SHOWING THE VALUE OF

TIMBER, STONE, &c.,

CUT TO ANY SIZE OR SCANTLING.

*At the several prices from 1*s.* 6*d.* to 5*s.* 6*d.* per foot cube; and which, by addition or subtraction only, will show the value at any greater or less prices.*

N.B.—In the tables at 1*s.* 6*d.*, 2*s.*, and 2*s.* 6*d.* the value is given in pence and eighths of a penny; but in the tables at 3*s.* to 5*s.* 6*d.* the value is given in pence and farthings.

2 In. Square			3½ In. Square			4 In. Square		
BY	d.	1/8	BY	d.	1/8	BY	d.	1/8
2½	0	5	4	1	4	4	2	0
3	0	6	4½	1	7	4½	2	2
3½	0	7	5	2	1	5	3	0
4	1	0	5½	2	3	6	3	7
4½	1	1	6	2	5	6½	3	4
5	1	2	6½	2	0	7	3	2
5½	1	3	7	2	6	7½	3	4
6	1	4	7½	2	3	8	3	5
6½	1	5	8	2	0	8½	3	7
7	1	6	8½	2	3	9	3	4
7½	1	7	9	2	0	9½	4	1
8	2	0	9½	2	3	10	4	3
8½	2	1	10	2	0	10½	4	4
9	2	2	10½	2	3	11	4	6
9½	2	3	11	2	0	11½	5	0
10	2	4	11½	2	3	12	5	2
10½	2	5	12	2	0			
11	2	6						
11½	2	7						
12	3	0						

3 In. Square.			4½ In. Square			5 In. Square		
BY	d.	1/8	BY	d.	1/8	BY	d.	1/8
3	1	1	4	2	0	5	3	1
			4½	2	2	5½	3	3
			5	2	4	6	3	6
			5½	2	6	6½	4	0
			6	3	0	7	4	3
			6½	3	2	7½	4	5
						8	5	0
						8½	5	2
						9	5	5
						9½	5	7
						10	6	2
						10½	6	4
						11	6	7
						11½	7	1
						12	7	4

5½ In. Square			7 In. Square			9 In. Square		
BY	d.	1/8	BY	d.	1/8	BY	d.	1/8
5½	3	6	7	6	1	9	10	1
6	4	1	7½	6	4	9½	10	5
6½	4	3	8	7	0	10	11	2
7	4	6	8½	7	3	10½	11	6
7½	5	1	9	7	7	11	12	3
8	5	4	9½	8	2	11½	12	7
8½	5	6	10	8	6	12	13	4
9	6	1	10½	9	1			
9½	6	4	11	9	5			
10	6	7	11½	10	0			
10½	7	1	12	10	4			
11	7	4						
11½	7	7						
12	8	2						

6 In. Square			7½ In. Square			9½ In. Square		
BY	d.	1/8	BY	d.	1/8	BY	d.	1/8
6	4	4	7½	7	0	9½	11	2
6½	4	7	8	7	4	10	11	7
7	5	2	8½	7	7	10½	12	3
7½	5	5	9	8	3	11	13	0
8	6	0	9½	8	7	11½	13	5
8½	6	3	10	9	3	12	14	2
9	6	6	10½	9	6			
9½	7	1	11	10	2			
10	7	4	11½	10	6			
10½	7	7	12	11	2			
11	8	2						
11½	8	5						
12	9	0						

8 In. Square			10 In. Square			10½ In. Square		
BY	d.	1/8	BY	d.	1/8	BY	d.	1/8
8	8	0	10	12	4	10	12	4
8½	8	4	10½	13	1	10½	13	1
9	9	0	11	13	6	11	13	6
9½	9	4	11½	14	3	11½	14	3
10	10	0	12	15	0	12	15	0
10½	10	4						
11	11	0						
11½	11	4						
12	12	0						

6½ In. Square			8½ In. Square			11 In. Square		
BY	d.	1/8	BY	d.	1/8	BY	d.	1/8
6½	5	2	8½	9	0	11	15	1
7	5	5	9	9	4	11½	15	6
7½	6	0	9½	9	4	12	16	4
8	6	4	10	10	0			
8½	6	7	10½	10	4			
9	7	2	11	11	0			
9½	7	5	11½	11	4			
10	8	1	12	12	0			
10½	8	4						
11	8	7						
11½	9	2						
12	9	6						

11½ In. Square			12 In. Square		
BY	d.	1/8	BY	d.	1/8
11½	16	4	12	17	2
12	17	2			

2 In. Square			3 1/2 In. Square			4 In. Square		
BY	s.	d.	BY	s.	d.	BY	s.	d.
2 1/2	0	1 1/4	3 1/2	0	3	4	0	4
3	0	1 1/2	4	0	3 1/2	4 1/2	0	4 1/2
3 1/2	0	1 3/4	4 1/2	0	3 3/4	5	0	5
4	0	2	5	0	4 1/4	5 1/2	0	5 1/2
4 1/2	0	2 1/4	5 1/2	0	4 3/4	6	0	6
5	0	2 1/2	6	0	5 1/4	6 1/2	0	6 1/2
5 1/2	0	2 3/4	6 1/2	0	5 1/2	7	0	7
6	0	3	7	0	6	7 1/2	0	7 1/2
6 1/2	0	3 1/4	7 1/2	0	6 1/2	8	0	8
7	0	3 1/2	8	0	7	8 1/2	0	8 1/2
7 1/2	0	3 3/4	8 1/2	0	7 1/4	9	0	9
8	0	4	9	0	7 3/4	9 1/2	0	9 1/2
8 1/2	0	4 1/4	9 1/2	0	8 1/4	10	0	10
9	0	4 1/2	10	0	8 1/2	10 1/2	0	10 1/2
9 1/2	0	4 3/4	10 1/2	0	9	11	1	10 3/4
10	0	5	11	0	9 1/2	11 1/2	1	11 1/4
10 1/2	0	5 1/4	11 1/2	0	10	12	1	11 3/4
11	0	5 1/2	12	0	10 1/2			
11 1/2	0	5 3/4						
12	0	6						

5 1/2 In. Square			7 In. Square			9 In. Square		
BY	s.	d.	BY	s.	d.	BY	s.	d.
5 1/2	0	7 1/2	7	1	0 1/4	9	1	8 1/4
6	0	8 1/4	7 1/2	1	1 1/4	9 1/2	1	9 1/4
6 1/2	0	8 3/4	8	1	2	10	1	10 1/2
7	0	9 1/2	8 1/2	1	3	10 1/2	1	11 3/4
7 1/2	0	10 1/4	9	1	3 3/4	11	2	0 3/4
8	0	11	9 1/2	1	4 3/4	11 1/2	2	2
8 1/2	0	11 1/2	10	1	5 1/2	12	2	3
9	1	0 1/4	10 1/2	1	6 1/2			
9 1/2	1	1	11	1	7 1/4			
10	1	1 3/4	11 1/2	1	8 1/4			
10 1/2	1	2 1/4	12	1	9 1/4			
11	1	3						
11 1/2	1	3 3/4						
12	1	4 1/2						

2 In. Square			3 1/2 In. Square			4 In. Square			3 In. Square			2 1/2 In. Square		
BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.
2 1/4	0	1 1/2	3 1/2	0	3 1/4	3 1/2	0	3 3/4	3 1/2	0	3 3/4	2 1/2	0	2
3	0	1 3/4	4	0	4	4	0	4 1/4	4	0	4 1/4	3	0	2 1/4
3 1/2	0	2 1/4	4 1/2	0	4 1/2	4 1/2	0	4 3/4	4 1/2	0	4 3/4	3 1/2	0	2 3/4
4	0	2 1/2	5	0	5	5	0	5 1/4	5	0	5 1/4	4	0	3
4 1/2	0	2 3/4	5 1/2	0	5 1/2	5 1/2	0	5 3/4	5 1/2	0	5 3/4	4 1/2	0	3 1/2
5	0	3	6	0	6	6	0	6 1/4	6	0	6 1/4	5	0	3 3/4
5 1/2	0	3 1/4	6 1/2	0	6 1/2	6 1/2	0	6 3/4	6 1/2	0	6 3/4	5 1/2	0	4 1/4
6	0	3 1/2	7	0	7	7	0	7 1/4	7	0	7 1/4	6	0	4 1/2
6 1/2	0	4	7 1/2	0	7 1/2	7 1/2	0	7 3/4	7 1/2	0	7 3/4	6 1/2	0	5 1/4
7	0	4 1/4	8	0	8	8	0	8 1/4	8	0	8 1/4	7	0	5 1/2
7 1/2	0	4 1/2	8 1/2	0	8 1/2	8 1/2	0	8 3/4	8 1/2	0	8 3/4	7 1/2	0	5 3/4
8	0	4 3/4	9	0	9	9	0	9 1/4	9	0	9 1/4	8	0	6
8 1/2	0	5	9 1/2	0	9 1/2	9 1/2	0	9 3/4	9 1/2	0	9 3/4	8 1/2	0	6 1/4
9	0	5 1/4	10	0	10	10	0	10 1/4	10	0	10 1/4	9	0	6 1/2
9 1/2	0	5 3/4	10 1/2	0	10 1/2	10 1/2	0	10 3/4	10 1/2	0	10 3/4	9 1/2	0	6 3/4
10	0	6	11	0	11	11	0	11 1/4	11	0	11 1/4	10	0	7
10 1/2	0	6 1/4	11 1/2	0	11 1/2	11 1/2	0	11 3/4	11 1/2	0	11 3/4	10 1/2	0	7 1/4
11	0	6 1/2	12	0	12	12	0	12 1/4	12	0	12 1/4	11	0	7 1/2
11 1/2	0	6 3/4										11 1/2	0	7 3/4
12	0	7										12	0	8

5 1/2 In. Square			7 In. Square			9 In. Square			6 In. Square			8 In. Square			6 1/2 In. Square			8 1/2 In. Square			11 In. Square		
BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.
5 1/2	0	9	7	1	2 1/2	9	1	11 1/2	6	0	10 1/2	8	1	7	6 1/2	1	0 1/2	11	2	11 1/4	11	3	0 3/4
6	0	9 3/4	7 1/2	1	3 1/2	9 1/2	1	12 1/2	6 1/2	0	11 1/2	8 1/2	1	8	7	1	1 1/2	11 1/2	3	0 3/4	11 1/2	3	2 1/2
6 1/2	0	10 3/4	8	1	4 1/2	10	1	13 1/2	7	1	0 1/4	9	1	9	7 1/2	1	2 1/2	12	3	2 1/2	12	3	4 1/4
7	0	11 1/2	8 1/2	1	5 1/2	10 1/2	1	14 1/2	7 1/2	1	1 1/4	9 1/2	1	10 1/4	8	1	3 1/4						
7 1/2	1	0 1/2	9	1	6 1/2	11	1	15 1/2	8	1	2	10	1	11	8 1/2	1	4 1/4						
8	1	1	9 1/2	1	7 1/2	11 1/2	1	16 1/2	8 1/2	1	3	10 1/2	1	11 1/2	9	1	5 1/4						
8 1/2	1	2	10	1	8 1/2	12	1	17 1/2	9	1	3 1/4	11	1	12 1/2	9 1/2	1	6 1/4						
9	1	2 3/4	10 1/2	1	9 1/2				9 1/2	1	4 3/4	11 1/2	1	13 1/2	10	1	7						
9 1/2	1	3 3/4	11	1	10 1/2				10	1	5 1/2	12	1	14 1/2	10 1/2	2	8 1/4						
10	1	4 1/2	11 1/2	1	11 1/2				10 1/2	1	6 1/2				11	2	9 3/4						
10 1/2	1	5 1/4	12	1	12 1/2				11	1	7 1/4				11 1/2	2	11 3/4						
11	1	5 3/4							11 1/2	1	8 1/4				12	3	13 1/4						
11 1/2	1	6 1/2							12	1	9						14 1/4						
12	1	7 1/4															15 1/4						

2 In. Square			3 1/2 In. Square			4 1/2 In. Square			5 In. Square			6 1/2 In. Square			7 1/2 In. Square			8 1/2 In. Square			9 1/2 In. Square		
BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.
2 1/2	0	1 3/4	4 1/2	0	4 1/2	7 1/2	0	7 1/2	10 1/2	1	1 1/2	13 1/2	1	1 1/2	16 1/2	1	1 1/2	19 1/2	1	1 1/2	22 1/2	1	1 1/2
3	0	2	5 1/2	0	5 1/2	8 1/2	0	8 1/2	11 1/2	1	2 1/2	14 1/2	1	2 1/2	17 1/2	1	2 1/2	20 1/2	1	2 1/2	23 1/2	1	2 1/2
3 1/2	0	2 1/2	6 1/2	0	6 1/2	9 1/2	0	9 1/2	12 1/2	1	3 1/4	15 1/2	1	3 1/4	18 1/2	1	3 1/4	21 1/2	1	3 1/4	24 1/2	1	3 1/4
4	0	2 3/4	7 1/2	0	7 1/2	10 1/2	0	10 1/2	13 1/2	1	4 1/4	16 1/2	1	4 1/4	19 1/2	1	4 1/4	22 1/2	1	4 1/4	25 1/2	1	4 1/4
4 1/2	0	3	8 1/2	0	8 1/2	11 1/2	0	11 1/2	14 1/2	1	5 1/4	17 1/2	1	5 1/4	20 1/2	1	5 1/4	23 1/2	1	5 1/4	26 1/2	1	5 1/4
5	0	3 1/4	9 1/2	0	9 1/2	12 1/2	0	12 1/2	15 1/2	1	6 1/4	18 1/2	1	6 1/4	21 1/2	1	6 1/4	24 1/2	1	6 1/4	27 1/2	1	6 1/4
5 1/2	0	3 3/4	10 1/2	0	10 1/2	13 1/2	0	13 1/2	16 1/2	1	7 1/4	19 1/2	1	7 1/4	22 1/2	1	7 1/4	25 1/2	1	7 1/4	28 1/2	1	7 1/4
6	0	4	11 1/2	0	11 1/2	14 1/2	0	14 1/2	17 1/2	1	8 1/4	20 1/2	1	8 1/4	23 1/2	1	8 1/4	26 1/2	1	8 1/4	29 1/2	1	8 1/4
6 1/2	0	4 1/4	12 1/2	0	12 1/2	15 1/2	0	15 1/2	18 1/2	1	9 1/4	21 1/2	1	9 1/4	24 1/2	1	9 1/4	27 1/2	1	9 1/4	30 1/2	1	9 1/4
7	0	4 1/2	13 1/2	0	13 1/2	16 1/2	0	16 1/2	19 1/2	1	10 1/4	22 1/2	1	10 1/4	25 1/2	1	10 1/4	28 1/2	1	10 1/4	31 1/2	1	10 1/4
7 1/2	0	5	14 1/2	0	14 1/2	17 1/2	0	17 1/2	20 1/2	1	11 1/4	23 1/2	1	11 1/4	26 1/2	1	11 1/4	29 1/2	1	11 1/4	32 1/2	1	11 1/4
8	0	5 1/4	15 1/2	0	15 1/2	18 1/2	0	18 1/2	21 1/2	1	12 1/4	24 1/2	1	12 1/4	27 1/2	1	12 1/4	30 1/2	1	12 1/4	33 1/2	1	12 1/4
8 1/2	0	5 3/4	16 1/2	0	16 1/2	19 1/2	0	19 1/2	22 1/2	1	13 1/4	25 1/2	1	13 1/4	28 1/2	1	13 1/4	31 1/2	1	13 1/4	34 1/2	1	13 1/4
9	0	6	17 1/2	0	17 1/2	20 1/2	0	20 1/2	23 1/2	1	14 1/4	26 1/2	1	14 1/4	29 1/2	1	14 1/4	32 1/2	1	14 1/4	35 1/2	1	14 1/4
9 1/2	0	6 1/4	18 1/2	0	18 1/2	21 1/2	0	21 1/2	24 1/2	1	15 1/4	27 1/2	1	15 1/4	30 1/2	1	15 1/4	33 1/2	1	15 1/4	36 1/2	1	15 1/4
10	0	6 1/2	19 1/2	0	19 1/2	22 1/2	0	22 1/2	25 1/2	1	16 1/4	28 1/2	1	16 1/4	31 1/2	1	16 1/4	34 1/2	1	16 1/4	37 1/2	1	16 1/4
10 1/2	0	7	20 1/2	0	20 1/2	23 1/2	0	23 1/2	26 1/2	1	17 1/4	29 1/2	1	17 1/4	32 1/2	1	17 1/4	35 1/2	1	17 1/4	38 1/2	1	17 1/4
11	0	7 1/4	21 1/2	0	21 1/2	24 1/2	0	24 1/2	27 1/2	1	18 1/4	30 1/2	1	18 1/4	33 1/2	1	18 1/4	36 1/2	1	18 1/4	39 1/2	1	18 1/4
11 1/2	0	7 3/4	22 1/2	0	22 1/2	25 1/2	0	25 1/2	28 1/2	1	19 1/4	31 1/2	1	19 1/4	34 1/2	1	19 1/4	37 1/2	1	19 1/4	40 1/2	1	19 1/4
12	0	8	23 1/2	0	23 1/2	26 1/2	0	26 1/2	29 1/2	1	20 1/4	32 1/2	1	20 1/4	35 1/2	1	20 1/4	38 1/2	1	20 1/4	41 1/2	1	20 1/4

5 1/2 In. Square			7 In. Square			9 In. Square			10 1/2 In. Square			11 In. Square			11 1/2 In. Square			12 In. Square					
BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.
5 1/2	0	10	7 1/2	1	4 1/2	9	2	2 3/4	10 1/2	2	9 3/4	11	2	11	11 1/2	3	0 1/2	12	3	6	12	3	10
6	0	11	8 1/2	1	5 3/4	10 1/2	2	9 3/4	11 1/2	3	0 1/2	12	3	2	12 1/2	3	2 1/2	13 1/2	3	4 1/2	14 1/2	3	8
6 1/2	1	0	9 1/2	1	7	11 1/2	3	0	12 1/2	3	2	13 1/2	3	4	14 1/2	3	6	15 1/2	3	8	16 1/2	3	10
7	1	1	10 1/2	1	8 1/4	12 1/2	3	0 1/2	13 1/2	3	2 1/2	14 1/2	3	4 1/2	15 1/2	3	6 1/4	16 1/2	3	8 1/4	17 1/2	3	11
7 1/2	1	2	11 1/2	1	9 1/4	13 1/2	3	1 1/2	14 1/2	3	3 1/2	15 1/2	3	5 1/4	16 1/2	3	7 1/2	17 1/2	3	9 1/4	18 1/2	3	12 1/2
8	1	2 3/4	12 1/2	1	10 1/2	14 1/2	3	2 1/2	15 1/2	3	4 1/2	16 1/2	3	6 1/4	17 1/2	3	8 1/4	18 1/2	3	10 1/2	19 1/2	3	14 1/2
8 1/2	1	3 3/4	13 1/2	1	11 1/2	15 1/2	3	3 1/2	16 1/2	3	5 1/4	17 1/2	3	7 1/2	18 1/2	3	9 1/4	19 1/2	3	11 1/2	20 1/2	3	16 1/2
9	1	4 1/2	14 1/2	1	12 1/2	16 1/2	3	4 1/2	17 1/2	3	6 1/4	18 1/2	3	8 1/4	19 1/2	3	10 1/2	20 1/2	3	12 1/2	21 1/2	3	18 1/2
9 1/2	1	5 3/4	15 1/2	1	13 1/2	17 1/2	3	5 1/4	18 1/2	3	7 1/2	19 1/2	3	9 1/4	20 1/2	3	11 1/2	21 1/2	3	13 1/2	22 1/2	3	20 1/2
10	1	6 1/2	16 1/2	1	14 1/2	18 1/2	3	6 1/4	19 1/2	3	8 1/4	20 1/2	3	10 1/2	21 1/2	3	12 1/2	22 1/2	3	14 1/2	23 1/2	3	22 1/2
10 1/2	1	7 1/4	17 1/2	1	15 1/2	19 1/2	3	7 1/2	20 1/2	3	9 1/4	21 1/2	3	11 1/2	22 1/2	3	13 1/2	23 1/2	3	15 1/2	24 1/2	3	24 1/2
11	1	8 1/4	18 1/2	1	16 1/2	20 1/2	3	8 1/4	21 1/2	3	10 1/2	22 1/2	3	12 1/2	23 1/2	3	14 1/2	24 1/2	3	16 1/2	25 1/2	3	26 1/2
11 1/2	1	9	19 1/2	1	17 1/2	21 1/2	3	9 1/4	22 1/2	3	11 1/2	23 1/2	3	13 1/2	24 1/2	3	15 1/2	25 1/2	3	17 1/2	26 1/2	3	28 1/2
12	1	10	20 1/2	1	18 1/2	22 1/2	3	10 1/4	23 1/2	3	12 1/2	24 1/2	3	14 1/2	25 1/2	3	16 1/2	26 1/2	3	18 1/2	27 1/2	3	30 1/2

2 In. Square			3½ In. Square			4½ In. Square		
BY	s.	d.	BY	s.	d.	BY	s.	d.
2½	0	2	3½	0	4	4½	0	8
3	0	2¼	4	0	4½	5	0	8¼
3½	0	2¾	4½	0	5¼	6	0	9
4	0	3	5	0	5¾	7	0	9½
4½	0	3½	5½	0	6¼	7½	0	10
5	0	4	6	0	6¾	8	0	10½
5½	0	4¼	6½	0	7½	8½	0	11
6	0	4½	7	0	8	9	0	11¼
6½	0	5	7½	0	8½	9½	0	12
7	0	5¼	8	0	9	10	0	12½
7½	0	5¾	8½	0	9¾	10½	0	13
8	0	6	9	0	10¼	11	0	13½
8½	0	6½	9½	0	10¾	11½	0	14
9	0	6¾	10	0	11¼	12	0	14½
9½	0	7¼	10½	0	11¾			
10	0	7½	11	0	12			
10½	0	7¾	11½	0	12½			
11	0	8	12	0	13			
11½	0	8¼						
12	0	9						

5½ In. Square			7 In. Square			9 In. Square		
BY	s.	d.	BY	s.	d.	BY	s.	d.
5½	1	0	7	1	6½	9	2	6
6	1	0½	7½	1	8	9½	2	8
6½	1	1	8	1	9½	10	2	10
7	1	2¼	8½	1	10½	10½	2	11¼
7½	1	4	9	1	11¾	11	3	1¼
8	1	5¼	9½	2	1¼	11½	3	3
8½	1	6	10	2	2½	12	3	4½
9	1	6¾	10½	2	3¾			
9½	1	8	11	2	5	9½ In. Square		
10	1	9¼	11½	2	6¼	BY	s.	d.
10½	1	10	12	2	7½	9½	2	10
11	1	10¾				10	2	11¼
11½	2	0				10½	3	1½
12	2	0¾				11	3	3½

6 In. Square.

BY	s.	d.
6	1	1½
6½	1	2¾
7	1	3¾
7½	1	5
8	1	6
8½	1	7¼
9	1	8¼
9½	1	9½
10	1	10½
10½	1	11¾
11	2	0¾
11½	2	2
12	2	3

6½ In. Square

BY	s.	d.
6½	1	4
7	1	5¼
7½	1	6½
8	1	7¾
8½	1	9
9	1	10
9½	1	11½
10	2	0½
10½	2	1¾
11	2	3
11½	2	4¼
12	2	5¼

7½ In. Square

BY	s.	d.
7½	1	9½
8	1	10¾
8½	2	0
9	2	1½
9½	2	3
10	2	4¼
10½	2	5¾
11	2	7
11½	2	8½
12	2	9¾

8 In. Square

BY	s.	d.
8	2	0
8½	2	1½
9	2	3
9½	2	4½
10	2	6
10½	2	7½
11	2	9
11½	2	10½
12	3	0

8½ In. Square

BY	s.	d.
8½	2	3½
9	2	4½
9½	2	6¼
10	2	8
10½	2	9¾
11	2	11½
11½	3	0¾
12	3	2¼

10 In. Square

BY	s.	d.
10	3	3½
10½	3	4¼
11	3	5
11½	3	7
12	3	9

10½ In. Square

BY	s.	d.
10½	3	7¼
11	3	8¼
11½	3	9¼
12	3	11¼

11 In. Square

BY	s.	d.
11	3	9½
11½	3	11½
12	4	1½

11½ In. Square

BY	s.	d.
11½	4	1½
12	4	3¾

2 In. Square			3 1/2 In. Square			4 1/2 In. Square			5 In. Square			4 In. Square			3 In. Square		
BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.
2 1/2	0	2 1/4	3 1/2	0	5	4 1/2	0	7	5	0	11	4	0	6 3/4	3	0	3 3/4
3	0	2 1/2	4	0	6	5 1/2	0	8 1/4	5 1/2	0	11 3/4	4 1/2	0	7 3/4	4	0	4 3/4
3 1/2	0	3	4 1/2	0	7	6 1/2	0	10 1/2	6	1	10 1/2	5 1/2	0	8 1/2	5 1/2	0	9 1/4
4	0	3 1/2	5 1/2	0	8 1/4	7 1/2	0	11 1/4	6 1/2	1	11 3/4	6	0	10	6 1/2	0	11
4 1/2	0	3 3/4	6 1/2	0	9 3/4	8 1/2	1	12 1/4	7 1/2	1	12 1/2	7 1/2	0	11 1/4	7 1/2	0	11 3/4
5	0	4 1/4	7 1/2	0	10 1/2	9 1/2	1	13 1/4	8 1/2	1	13 1/2	8 1/2	0	12 1/4	8 1/2	0	12 1/2
5 1/2	0	4 3/4	8 1/2	1	11 1/4	10 1/2	1	14 1/4	9 1/2	1	14 1/2	9 1/2	0	13 1/4	9 1/2	0	13 1/2
6	0	5	9 1/2	1	12 1/4	11 1/2	1	15 1/4	10 1/2	1	15 1/2	10 1/2	0	14 1/4	10 1/2	0	14 1/2
6 1/2	0	5 1/2	10 1/2	1	13 1/4	12	1	16 1/4	11 1/2	1	16 1/2	11 1/2	0	15 1/4	11 1/2	0	15 1/2
7	0	6	11 1/2	1	14 1/4				12	1	17 1/4	12	0	16 1/4	12	0	16 1/2
7 1/2	0	6 1/4	12	1	15 1/4							12	0	17 1/4	12	0	17 1/2
8	0	6 3/4															
8 1/2	0	7 1/4															
9	0	7 1/2															
9 1/2	0	8															
10	0	8 1/2															
10 1/2	0	9															
11	0	9 1/4															
11 1/2	0	9 3/4															
12	0	10															

5 1/2 In. Square			7 In. Square			9 In. Square			9 1/2 In. Square			10 In. Square			10 1/2 In. Square			11 In. Square			11 1/2 In. Square					
BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.	BY	s.	d.			
5 1/2	1	0 1/2	7	1	8 1/2	9	2	9	9 1/2	3	2 1/2	10	3	8	10 1/2	3	9 1/2	11	3	10 3/4	11 1/2	4	0 1/2	11	4	2 1/2
6	1	1 3/4	7 1/2	1	10	9 1/2	2	11 1/4	10	3	4 3/4	10 1/2	3	9 1/2	11	3	9 1/2	11 1/2	4	0 1/2	11 1/2	4	4 3/4	12	4	7
6 1/2	1	3	8	1	11 1/2	10	3	1 1/2	10 1/2	3	6 1/4	11	3	7 1/2	11 1/2	3	10 3/4	12	4	2	12	4	4 1/2			
7	1	4 1/4	8 1/2	2	1	10 1/2	2	5 1/4	11	3	7 1/2	11 1/2	3	9 3/4	12	4	11 1/2									
7 1/2	1	5 1/2	9	2	2 1/4	11	2	6 1/2	11 1/2	3	9 3/4	12	3	11 1/2												
8	1	6 1/2	9 1/2	2	3 3/4	11 1/2	2	8	12	3	11 1/2															
8 1/2	1	7 1/2	10	2	5 1/4	12	2	9 1/2																		
9	1	8 3/4	10 1/2	2	6 1/2																					
9 1/2	1	10	11	2	8																					
10	1	11	11 1/2	2	9 1/2																					
10 1/2	2	0	12	2	11																					
11	2	1 1/4																								
11 1/2	2	2 1/2																								
12	2	3 1/2																								

2 In. Square			3 1/2 In. Square			4 In. Square		
BY	s.	d.	BY	s.	d.	BY	s.	d.
2 1/2	0	2 1/2	3 1/2	0	6	4	0	7 1/2
3	0	3 1/2	4	0	6 1/2	4 1/2	0	8 1/2
3 1/2	0	3 3/4	4 1/2	0	7 1/2	5	0	9
4	0	3 3/4	5	0	8 1/4	5 1/2	0	9 3/4
4 1/2	0	4 1/4	5 1/2	0	9	6 1/2	0	10 1/2
5	0	4 3/4	6	0	9 3/4	7	0	11 1/2
5 1/2	0	5	6 1/2	0	10 1/2	7 1/2	1	1
6	0	5 1/2	7	0	10 1/4	8	1	1 1/4
6 1/2	0	6	7 1/2	1	1	8 1/2	1	1 1/2
7	0	6 1/2	8	1	1 3/4	9	1	2 1/2
7 1/2	0	7	8 1/2	1	2 1/2	9 1/2	1	3 1/2
8	0	7 1/2	9	1	3 1/2	10	1	4 1/4
8 1/2	0	8	9 1/2	1	4 1/4	10 1/2	1	5 1/2
9	0	8 1/4	10	1	5 1/4	11	1	6 1/2
9 1/2	0	8 3/4	10 1/2	1	5 3/4	11 1/2	2	0
10	0	9	11	1	6 1/4	12	2	0 3/4
10 1/2	0	9 3/4	11 1/2	1	6 3/4			
11	0	10	12	1	7 1/4			
11 1/2	0	10 1/2						
12	0	11						

3 In. Square			4 1/2 In. Square			5 In. Square		
BY	s.	d.	BY	s.	d.	BY	s.	d.
3 1/2	0	6	4 1/2	0	9 3/4	5	1	0 1/4
4	0	6 1/2	5	0	10 3/4	5 1/2	1	1
4 1/2	0	7 1/2	5 1/2	0	11 3/4	6	1	1 3/4
5	0	8 1/4	6	1	0 1/2	6 1/2	1	3 1/4
5 1/2	0	9	6 1/2	1	1 3/4	7	1	4 1/2
6	0	9 3/4	7	1	2 3/4	7 1/2	1	5 1/2
6 1/2	0	10 1/2	7 1/2	1	3 1/4	8	1	6 1/2
7	0	10 1/4	8	1	4 3/4	8 1/2	1	7 3/4
7 1/2	1	1	8 1/2	1	5 3/4	9	1	8 3/4
8	1	1 1/4	9	1	6 3/4	9 1/2	1	9 1/2
8 1/2	1	2 1/2	9 1/2	1	7 1/2	10	1	11
9	1	3 1/2	10	1	8 3/4	10 1/2	2	0 1/4
9 1/2	1	4 1/4	10 1/2	1	10	11	2	1 1/4
10	1	5 1/4	11	1	10 3/4	11 1/2	2	2 1/2
10 1/2	1	6 1/4	11 1/2	2	0	12	2	3 1/2
11	1	7 1/4	12	2	0 3/4			
11 1/2	1	8 1/4						
12	1	9 1/4						

4 In. Square			6 In. Square		
BY	s.	d.	BY	s.	d.
4	0	7 1/2	6	1	4 1/2
4 1/2	0	8 1/2	6 1/2	1	6
5	0	9 1/4	7	1	7 1/4
5 1/2	0	10 1/4	7 1/2	1	8 3/4
6	0	11	8	1	10
6 1/2	1	0	8 1/2	1	11 1/2
			9	2	0 3/4
			9 1/2	2	2 1/4
			10	2	3 1/2
			10 1/2	2	5
			11	2	6 1/4
			11 1/2	2	7 3/4
			12	2	9

6 1/2 In. Square			7 In. Square			8 In. Square		
BY	s.	d.	BY	s.	d.	BY	s.	d.
6 1/2	1	8	7	1	10 1/2	8	2	6
7	1	9 1/4	7 1/2	1	11 3/4	8 1/2	2	7 1/2
7 1/2	1	10 3/4	8	2	1 3/4	9	2	9
8	2	0	8 1/2	2	3 1/2	9 1/2	2	11
8 1/2	2	1 1/2	9	2	5	10	3	0 3/4
9	2	3	9 1/2	2	6 1/2	10 1/2	3	2 1/2
9 1/2	2	4 1/2	10	2	8 1/4	11	3	4 1/4
10	2	6	10 1/2	2	9 3/4	11 1/2	3	6 1/4
10 1/2	2	7 1/2	11	2	11 1/4	12	3	8
11	2	8 3/4	11 1/2	2	12 1/4			
11 1/2	2	10 1/2	12	2	13 1/4			
12	2	11 3/4						

5 1/2 In. Square			7 In. Square			9 In. Square		
BY	s.	d.	BY	s.	d.	BY	s.	d.
5 1/2	1	2	7	1	10 1/2	9	3	0 3/4
6	1	3 1/4	7 1/2	1	11 3/4	9 1/2	3	3 1/4
6 1/2	1	4 3/4	8	2	1 3/4	10	3	5 1/2
7	1	6	8 1/2	2	3 1/2	10 1/2	3	7 1/2
7 1/2	1	7 1/4	9	2	5	11	3	9 1/2
8	1	8 1/4	9 1/2	2	6 1/2	11 1/2	3	11
8 1/2	1	9 1/2	10	2	8 1/4	12	4	1 1/2
9	1	10 3/4	10 1/2	2	9 3/4			
9 1/2	2	0	11	2	11 1/4			
10	2	1 1/4	11 1/2	3	1			
10 1/2	2	2 1/2	12	3	2 1/2			
11	2	3 3/4						
11 1/2	2	5 1/4						
12	2	6 1/4						

9 1/2 In. Square			10 In. Square			10 1/2 In. Square		
BY	s.	d.	BY	s.	d.	BY	s.	d.
9 1/2	3	7 1/2	10	4	0 1/2	10 1/2	4	1 1/2
10	3	9	10 1/2	4	2	11	4	2 1/2
10 1/2	3	10 1/2	11	4	4	11 1/2	4	4 3/4
11	4	0	11 1/2	4	2	12	4	7
11 1/2	4	0						
12	4	4 1/4						

8 In. Square			11 In. Square			11 1/2 In. Square		
BY	s.	d.	BY	s.	d.	BY	s.	d.
8	2	6	11	4	7 1/2	11 1/2	5	1
8 1/2	2	7 1/2	11 1/2	4	10	12	5	3 1/4
9	2	9	12	5	0 1/2			
9 1/2	2	11						
10	3	0 3/4						
10 1/2	3	2 1/2						
11	3	4 1/4						
11 1/2	3	6 1/4						
12	3	8						

THE
EXPLANATION AND USE
OF THE FOLLOWING
T A B L E
OF
SUPERFICIAL OR FLAT
MEASURE.

1st. THIS table begins with 1 inch broad, and by the addition of a quarter of an inch, extends itself to 24 inches the breadth.

2ndly. Each page of this table is divided into two distinct parts, and each part consists of two columns.

3rdly. The first part of the narrow column to the left hand shows the several lengths in feet, from 1 to 24; the second part the inches, from 1 to 11; the third part, the quarters of an in.

4thly. The three or four rows of figures in the larger columns, on the right-hand, marked at the top FT. IN. PA., and lower FT. IN. PA. S. and T., are the several contents in the square feet, inches, twelfth parts of an inch, seconds, and thirds, answering to every foot, inch, and quarter of an inch in the length, in the left hand column.

THE USE OF THE TABLE.

EXAMPLE I.

If a board is 5 inches broad and 9 feet long, I desire to know how many square feet are contained therein?

Look at the top of the table for 5 inches, the breadth, and then keep your eye down the left-hand column, till you come to 9 feet, the length, and opposite that stands 3: 9: 0, which signifies 3 feet 9 inches, the content required.

EXAMPLE II.

There is a plank 17 feet 9 inches long, and 21½ inches broad — how many square feet are contained in that plank?

At the top of the table find 21½ inches, the breadth, then look down the left-hand column for 17 feet, the length, and opposite it stands 30: 5: 6, which signifies 30 feet 5½ inches. Then look for 9 inches, the length, opposite which

stands 1: 4: 1: 6, signifying 1 foot, 4 inches, 1 twelfth part, and 6 seconds, add these together and you will find the content to be 31 feet, 9 inches, and 7 twelfth parts—the 6 seconds may be rejected.

Note.—The quarters of an inch (when you have occasion for them) must be found and added to the feet and inches.

If you have a plank broader at one end than the other (which is very common), you will certainly, by what has been observed before, either take the breadth in the middle or at each end, add them together, and take half for the true breadth (provided both edges be straight), as you are directed in the case of solid measure on pages 37 and 38.

When you happen to meet with any board, plank, &c. broader than 24 inches, or longer than 24 feet, you must observe

EXAMPLE III.

In a plank 19 feet long and 27 inches broad, how many square feet are there?

Now since your table extends but to 24 inches broad, the 27 inches must be taken out at twice, viz.

19 feet long by 24 inches broad is 38 0 0

19 feet long by 3 inches broad is 4 9 0

The content required is..... 42 9 0

If you have a stock or parcel of boards or planks to measure, which are all of one length, but of different breadths, you must set down the contents of each, and add them together in the following manner:—

EXAMPLE IV.

Sixteen feet is the common length, and the breadth of

		Contents.			
		IN.	F.	I.	P.
No. 1	is	7	9	4	0
2		7½	10	0	0
3		8	10	8	0
4		8½	11	4	0
5		9	12	0	0
6		9½	12	8	0
7		10	13	4	0
8		10½	14	0	0
9		11	14	8	0
10		11½	15	4	0
11		12	16	0	0

The square or superficial content of the said 11 planks is... } 139 4 0

See the observations concerning Sawyer's work on page 186.

THE USE OF THE TABLE

OF
SUPERFICIAL OR FLAT MEASURE,
WHEN APPLIED TO
GLAZIERS' WORK
OF ALL KINDS.

EXAMPLE I.

In a window of leaded glass which has three lights in it, each light being 3 feet long and $15\frac{1}{4}$ inches broad, I desire to know how many feet there are of glazing?

First, add the length of the three lights together, which makes 9 feet, then look in the table for $15\frac{1}{4}$ inches, the breadth, and opposite the 9 feet, the length, you will find 11 : 5 : 3, which is 11 feet, 5 inches, and 3 twelfth parts, the content of the three lights required.

EXAMPLE II.

In four windows of leaded glass, each window having two lights, and each light, being 3 feet $6\frac{3}{4}$ inches long and $17\frac{3}{4}$ inches broad, I demand how many feet there are of glazing?

First, the length of all the eight lights must be added together, which make 28 feet 6 inches, then look in the table for $17\frac{3}{4}$ inches, the breadth. But since the table does not extend to 28 feet, the length, you must take the answer out at thrice, viz.

	F.	I.	P.	S.
20 feet long, and $17\frac{3}{4}$ inches the breadth, is..	}	29	7	0 0
8 feet long, and $17\frac{3}{4}$ inches the breadth, is..				
6 inches long, and $17\frac{3}{4}$ inches the breadth, is..				
The content required....		42	1	10 6

So that four windows, each having two lights, and each light being 3 feet $6\frac{3}{4}$ inches long and $17\frac{3}{4}$ inches wide, contain 42 feet, 1 inch, 10 twelfth parts, and 6 seconds of glazing.

Note.—If you have any quarters of an inch in the length, they must be found at the bottom of the table, and added as the inches are in this Example.

To measure Sash-squares this table is also very useful.

EXAMPLE III.

In a sash-window that has 12 squares of glass, (i. e. 4 high and 3 broad,) each square being 10 inches high and $8\frac{1}{4}$ inches broad, I would know how many feet of glass it contains?

First, add together the height of the 12 squares, which make 10 feet, then look in the table for $8\frac{1}{4}$ inches, the breadth, and opposite 10 feet, the length, is 6 feet, 10 inches, and 6 twelfth parts, which is the quantity of glass in the said sash-window.

Note.—If you have any odd inches, or quarters of an inch, in the length, you must proceed as in Example II.

EXAMPLE IV.

In a sash-window having 18 squares, each square being 20 inches high and $11\frac{3}{4}$ inches broad, I would know how many feet of glass are therein?

First, add together the height of the 18 squares, which is 360 inches (or 30 feet,) then look in the table for $11\frac{3}{4}$ inches, the breadth. But since the table does not extend to 30 feet, the length, you must take the answer out at twice, viz.

	F.	I.	P.
20 feet long, and $11\frac{3}{4}$ inches in breadth, is	}	19	7 0
10 feet long, and $11\frac{3}{4}$ inches in breadth, is			
The content required is ...		29	4 6

So that a sash-window that has 18 squares, each square being 20 inches high and $11\frac{3}{4}$ inches wide, contains 29 feet, 4 inches and a half of glass.

Note.—Observe that, for the generality, sash-windows have either 12 or 18 squares each, and in such a case the quantities are more easily and expeditiously found by the following method:—

When a window has 12 squares, the inches in height are to be conceived so many feet in length, as will more

plainly appear by re-considering the foregoing Example III. where the 12 squares were each of them 10 inches high, and consequently, when added together, make 10 feet in length; so that by this method of conceiving the inches in height to be feet, the trouble and time in adding the 12 together is hereby saved, and the question more easily answered.

Again, when a window hath 18 squares in it, if you conceive the height in inches to be feet, and take the content as given by the table, and the half of that content, these added together will be the quantity; and this method will be very serviceable (if rightly understood), for by this means you will rarely exceed the extent of the table, (few squares being more than 24 inches high, the bounds of the table in feet,) as for instance:—

In Example IV. where the height of each square was 20 inches, and $11\frac{3}{4}$ inches broad, look in the table for $11\frac{3}{4}$ inches, and opposite 20 feet long (i. e. inches high) is 19 feet 7 inches, half of which is 9 feet $9\frac{1}{2}$ inches, and these being added together make 29 feet $4\frac{1}{2}$ inches, which was the content as given before on page 183.

Many more examples might be added to illustrate this rule, but a little application and practice will make it very easy and familiar.

A TABLE OF

ENGLISH MEASURES AND QUANTITIES,
RELATING TO BUILDING AND LAND.

An inch is one-twelfth of a foot.

A palm is 3 inches.

A hand is 4 inches.

A span is 9 inches, or a quarter of yard, or half a cubit.

A foot is 12 inches, or 3 hands.

A square foot is 144 square inches.

A cubical foot is 1728 cubical inches.

A cubit is 4 hands and a half, or 1 foot and a half.

A yard is 36 inches, or 2 cubits.

A square yard is 9 square feet.

A cubical yard is 27 cubical feet.

An ell is 1 yard and a quarter, or 45 in.

A geometrical space is 5 feet.

A fathom is 6 feet, or 2 yards.

A square is 100 square feet.

A statute pole, perch, or rod is 16 feet and a half.

A chain is 4 statute poles or perches, or 22 yards.

A fen, or woodland, pole or perch is 18 feet.

A forest pole or perch is 21 feet.

A furlong is 40 poles or perches, or 220 yards.

A mile is 8 furlongs, or 1760 yards.

A square statute pole or perch is $272\frac{1}{4}$ square feet.

A square woodland pole or perch is 234 square feet.

A rood is 40 square poles or perches.

An acre is 48 square roods, or 160 perches

A load of rough timber is 40 feet.

A load of squared timber is 50 feet.

A load of 1 inch plank is 600 square ft.

A load of $1\frac{1}{2}$ inch plank is 400 square ft.

A load of 2 inch plank is 300 square ft.

A load of $2\frac{1}{2}$ in. plank is 240 square ft.

A load of 3 inch plank is 200 square ft.

A load of $3\frac{1}{2}$ in. plank is 170 square ft.

A load of 4 in. plank is 150 square ft.

A load of statute bricks is 500.

A load of plain tiles is 1000.

A load of lime is 32 bushels.

A load of sand is 36 bushels.

A hundred of lime is 35 bushels.

A hundred of deals is 120.

A hundred of nails is 120.

A thousand of nails is 1200.

A ton of iron is 2240 pounds weight.

A fodder of lead is $19\frac{1}{2}$ hundred, or 2184 pounds.

A hundred of lead is 112 pounds weight.

A table of glass is 5 ft., and 45 tables is a case; but of Newcastle and Normandy glass 25 tables make a case.

A bundle of 4 feet oak-heart laths is 120, and $37\frac{1}{2}$ bundles is a load.

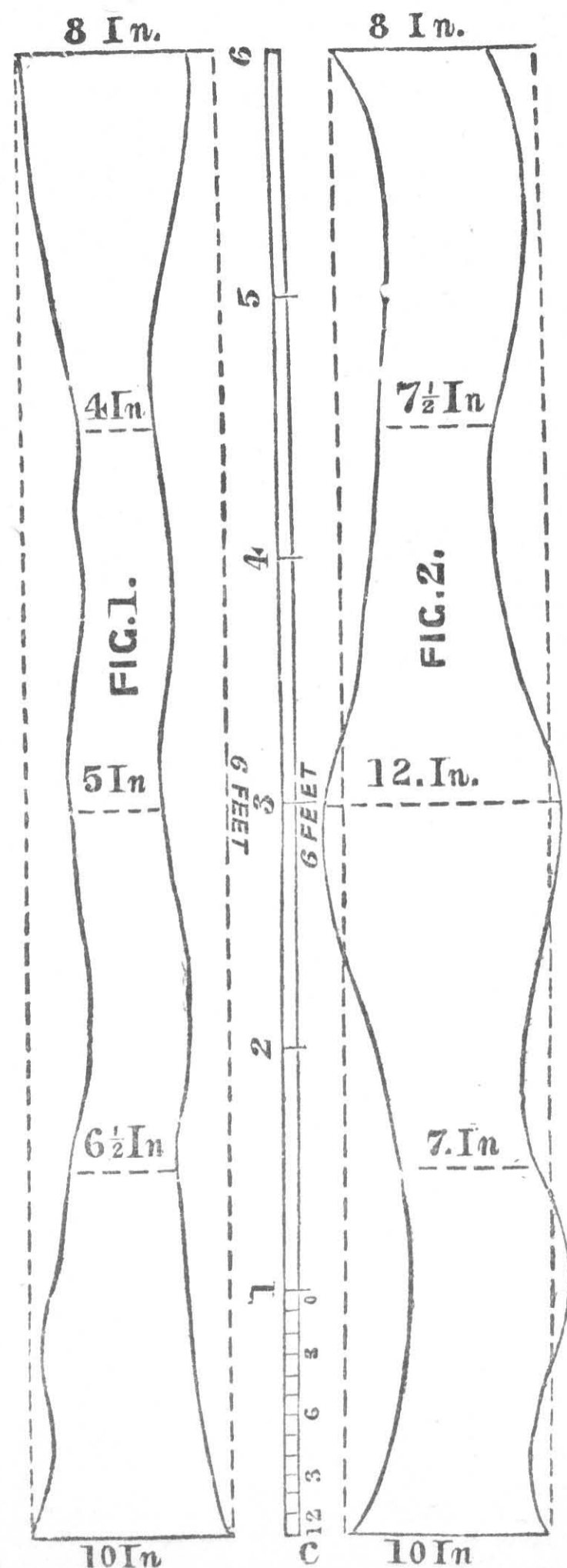
A bundle of 5 feet oak-heart laths is 100, and 30 bundles is a load.

Note.—Fir and deal laths are of divers length as 3, 4, 5, and 6 feet, but all of them are reduced to the standard length of 5 feet, and so every run of bundles (each bundle containing 100 laths) is a load, being equal to 30 bundles of 5 feet laths.

OBSERVATIONS CONCERNING TIMBER

SAWED INTO BOARDS OR PLANKS:

And also concerning Sawyer's Work, and the usual Method of Measuring; with some account of the London Prices of Sawyer's Work.



The figures on this page are intended to

represent two different shaped boards or planks, each 6 feet long, 10 inches broad at the butt, and 8 inches broad at the top; the dotted lines show how they each differ from the boards or planks that are straight-sided.

Fig. 1 you see measures 5 inch in the middle which look for in the table, and at 6 feet, the length, you find it contains 2 feet 6 inches, according to the customary way of measuring.

Fig. 2 measures 12 inches in the middle, which look for in the table, and at 6 feet, the length, you find it contains 6 feet, according to the customary way of measuring. So it is evident, that of two boards or planks, of the same length and of the same breadth at the butt and top, according as the middle runs, one shall contain 3 superficial feet and a half more or less than the other.

Fig. 1 by two dimensions.

Let us now suppose fig. 1 to be cut in the middle, and to be measured by two dimensions; the middle of the bottom part measures 6 1/2 inches, which look for in the table, and at 3 feet, the length, you find it contains 1 foot 7 1/2 inches; the middle of the top part is 4 inches, which look for in the table, and at 3 feet, the length, you find it contains 1 foot, and these added together make the whole to be 2 feet 7 1/2 inches—So that there is only 1 superficial inch and a half gained or lost by measuring fig. 1 by one or two dimensions.

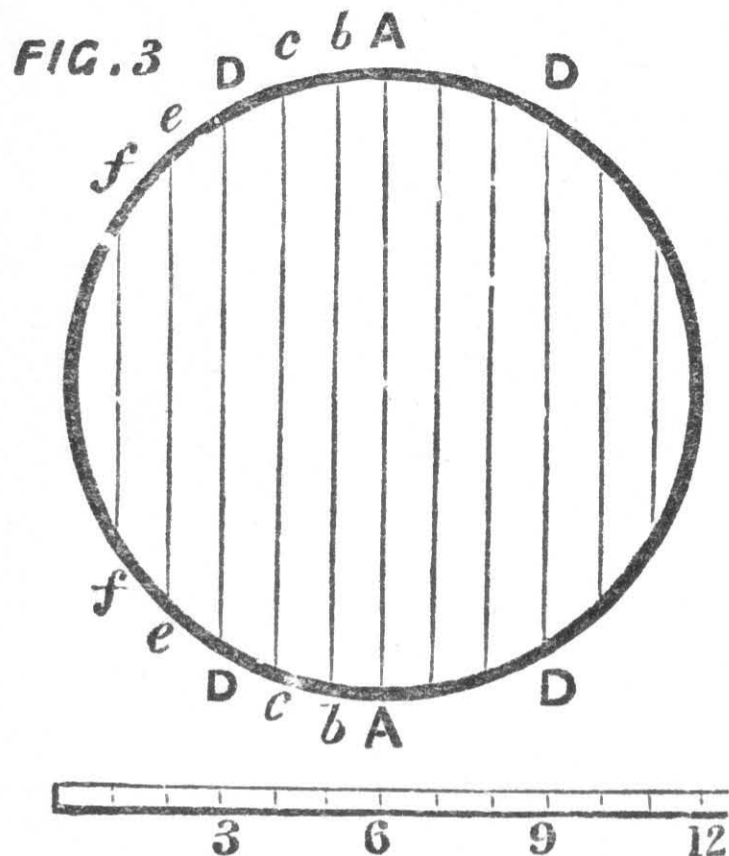
Fig. 2 by two dimensions.

Let us now measure fig. 2 by two dimensions; the middle of the bottom part measures 7 inches, which look for in the table, and at 3 feet, the length, you will find it contains 1 foot 9 inches; the middle of the top part is 7 1/2 inches, which, by the table, at 3 feet, the length is 1 foot 10 1/2 inches, and these added together (instead of making 6 feet as before, make the whole to contain no more than 3 feet 7 1/2 inches, which is 2 feet 4 1/2 inches less than it measured when measured by one dimension.

And if we suppose fig. 2 to be a fine

walnut-tree, 2 inch plank, at 12*d.* per foot, if measured by one dimension it comes to 6*s.* but if it be measured by two dimensions it comes (at the same price) to no more than 3*s.* 7½*d.* which is 2*s.* 4½*d.* loss.

The following cut, Fig. 3, is intended to represent the end of a STRAIGHT PIECE OF ROUND TIMBER, 12 in. diameter at each end, and 6 ft. long.



A A shows what is commonly called Sawyers' Measure, for which in London, if it be oak, there is usually paid 3*s.* per 100 feet superficial measure.

DD shows what is commonly called Market Measure, (which is the truest), for which, in London, if it be oak, there is usually paid 3*s.* 6*d.* per 100 feet superficial measure.

The first column in the following table shows the diameter, the second the superficial content, and the third what is lost per each cut or board, if you pay for them all per Sawyers' Measure.

The Diameter or breadth of each cut.	Superficial content of each cut or board.			Lost per each cut.		
	F.	I.	P.	F.	I.	P.
A A	1	0	0	0	0	0
b b	0	11½	6	0	1	6
c c	0	11¼	0	0	3	0
D D	0	10¼	6	0	7	6
e e	0	9	0	1	6	0
f f	0	7	0	2	6	0

IN LONDON THE SAWYERS CUT TIMBER AT THE FOLLOWING PRICES.

Oak from 3*s.* to 3*s.* 6*d.* per 100 feet superficial measure, or 7*s.* per load of 50 feet.

Ash from 5*s.* to 6*s.* per 100 feet superficial measure, or from 8*s.* to 12*s.* per load of 50 solid feet.

Fir from 3*s.* to 4*s.* per 100 feet superficial measure, or 6*s.* per load of 50 solid feet.

What are called Deals are sawed abroad, but for slitting 10 feet deals there is usually paid in London 2*s.* 6*d.* per dozen, or 2½*d.* per cut, and for 12 feet deals 3*s.* per dozen, or 3*d.* per cut.

Mahogany from 5*s.* to 8*s.* per 100 feet superficial measure.

Walnut-tree from 5*s.* to 7*s.* per 100 feet superficial measure.

Elm from 2*s.* 6*d.* to 5*s.* per 100 feet superficial measure.

Note.—Mahogany, Walnut-tree, and Elm are never cut by the load.

Beech is commonly used for bed-steads, chairs, table-frames, &c. and is generally cut in the country.

The difference in the prices of sawing the foregoing woods arises from the valuableness and fineness in the timber and sawing.

No planking less than 2 inches thick is cut by the load; in case it is thinner than 2 inches, it is measured by the 100 feet superficial measure.

By custom the sawyers of London have, one piece with another as they shall happen to fall out, as much per load for breaking down or cutting a piece of timber into large scantlings as they have for breaking down and cutting it into small scantlings, viz. they will cut a piece of timber a foot square, of any length, into 2 scantlings of 12 inches by 6, or into 4 scantlings of 6 inches by 6, or into 12 scantlings of 4 inches by 3, all at one and the same price; and the reason they give for this practice is, where the stuff proves fine it is seldom or never the interest of the owner to have it cut into small scantlings.

Having occasionally made use of the terms lineal or running, superficial or square, and solid or cubical measure, in the foregoing pages, it may not be amiss here to explain them.

Lineal or running measure regards only the length, and has no regard to the breadth or thickness.

Superficial or square measure regards the length and breadth.

Solid or cubical measure regards the length, breadth, or thickness.

Feet Long	1 Inch Broad			Feet Long	1½ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	1	0	1	0	1	3
2	0	2	0	2	0	2	6
3	0	3	0	3	0	3	9
4	0	4	0	4	0	5	0
5	0	5	0	5	0	6	3
6	0	6	0	6	0	7	6
7	0	7	0	7	0	8	9
8	0	8	0	8	0	10	0
9	0	9	0	9	0	11	3
10	0	10	0	10	1	0	6
11	0	11	0	11	1	1	9
12	1	0	0	12	1	3	0
13	1	1	0	13	1	4	3
14	1	2	0	14	1	5	6
15	1	3	0	15	1	6	9
16	1	4	0	16	1	8	0
17	1	5	0	17	1	9	3
18	1	6	0	18	1	10	6
19	1	7	0	19	1	11	9
20	1	8	0	20	2	1	0
21	1	9	0	21	2	2	3
22	1	10	0	22	2	3	6
23	1	11	0	23	2	4	9
24	2	0	0	24	2	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	0	1	0	1	0	0	1	3
2	0	0	2	0	2	0	0	2	6
3	0	0	3	0	3	0	0	3	9
4	0	0	4	0	4	0	0	5	0
5	0	0	5	0	5	0	0	6	3
6	0	0	6	0	6	0	0	7	6
7	0	0	7	0	7	0	0	8	9
8	0	0	8	0	8	0	0	10	0
9	0	0	9	0	9	0	0	11	3
10	0	0	10	0	10	0	1	0	6
11	0	0	11	0	11	0	1	1	9

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	9	0	3	0	¼	0	0	3	9
½	0	0	6	0	½	0	0	7	6
¾	0	0	9	0	¾	0	0	11	3

Feet Long	1½ Inches Broad			Feet Long	1¾ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	1	6	1	0	1	9
2	0	3	0	2	0	3	6
3	0	4	6	3	0	5	3
4	0	6	0	4	0	7	0
5	0	7	6	5	0	8	9
6	0	9	0	6	0	10	6
7	0	10	6	7	1	0	3
8	1	0	0	8	1	2	0
9	1	1	6	9	1	3	9
10	1	3	0	10	1	5	6
11	1	4	6	11	1	7	3
12	1	6	0	12	1	9	0
13	1	7	6	13	1	10	9
14	1	9	0	14	2	0	6
15	1	10	6	15	2	2	3
16	2	0	0	16	2	4	0
17	2	1	6	17	2	5	9
18	2	3	0	18	2	7	6
19	2	4	6	19	2	9	3
20	2	6	0	20	2	11	0
21	2	7	6	21	3	0	9
22	2	9	0	22	3	2	6
23	2	10	6	23	3	4	3
24	3	0	0	24	3	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	0	1	6	1	0	0	1	9
2	0	0	3	0	2	0	0	3	6
3	0	0	4	6	3	0	0	5	3
4	0	0	6	0	4	0	0	7	0
5	0	0	7	6	5	0	0	8	9
6	0	0	9	0	6	0	0	10	6
7	0	0	10	6	7	0	1	0	3
8	0	1	0	0	8	0	1	2	0
9	0	1	1	6	9	0	1	3	9
10	0	1	3	0	10	0	1	5	6
11	0	1	4	6	11	0	1	7	3

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	0	4	6	¼	0	0	5	3
½	0	0	9	0	½	0	0	10	6
¾	0	1	1	6	¾	0	1	3	9

Feet Long	2 Inches Broad			Feet Long	2½ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	2	0	1	0	2	3
2	0	4	0	2	0	4	6
3	0	6	0	3	0	6	9
4	0	8	0	4	0	9	0
5	0	10	0	5	0	11	3
6	1	0	0	6	1	1	6
7	1	2	0	7	1	3	9
8	1	4	0	8	1	6	0
9	1	6	0	9	1	8	3
10	1	8	0	10	1	10	6
11	1	10	0	11	2	0	9
12	2	0	0	12	2	3	0
13	2	2	0	13	2	5	3
14	2	4	0	14	2	7	6
15	2	6	0	15	2	9	9
16	2	8	0	16	3	0	0
17	2	10	0	17	3	2	3
18	3	0	0	18	3	4	6
19	3	2	0	19	3	6	9
20	3	4	0	20	3	9	0
21	3	6	0	21	3	11	3
22	3	8	0	22	4	1	6
23	3	10	0	23	4	3	9
24	4	0	0	24	4	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	0	2	0	1	0	0	2	3
2	0	0	4	0	2	0	0	4	6
3	0	0	6	0	3	0	0	6	9
4	0	0	8	0	4	0	0	9	0
5	0	0	10	0	5	0	0	11	3
6	0	1	0	0	6	0	1	1	6
7	0	1	2	0	7	0	1	3	9
8	0	1	4	0	8	0	1	6	0
9	0	1	6	0	9	0	1	8	3
10	0	1	8	0	10	0	1	10	6
11	0	1	10	0	11	0	2	0	9

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	0	6	0	¼	0	0	6	9
½	0	1	0	0	½	0	1	1	6
¾	0	1	6	0	¾	0	1	8	3

Feet Long	2½ Inches Broad			Feet Long	2¾ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	2	6	1	0	2	9
2	0	5	0	2	0	5	6
3	0	7	6	3	0	8	3
4	0	10	0	4	0	11	0
5	1	0	6	5	1	1	9
6	1	3	0	6	1	4	6
7	1	5	6	7	1	7	3
8	1	8	0	8	1	10	0
9	1	10	6	9	2	0	9
10	2	1	0	10	2	3	6
11	2	3	6	11	2	6	3
12	2	6	0	12	2	9	0
13	2	8	6	13	2	11	9
14	2	11	0	14	3	2	6
15	3	1	6	15	3	5	3
16	3	4	0	16	3	8	0
17	3	6	6	17	3	10	9
18	3	9	0	18	4	1	6
19	3	11	6	19	4	4	3
20	4	2	0	20	4	7	0
21	4	4	6	21	4	9	9
22	4	7	0	22	5	0	6
23	4	9	6	23	5	3	3
24	5	0	0	24	5	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	0	2	6	1	0	0	2	9
2	0	0	5	0	2	0	0	5	6
3	0	0	7	6	3	0	0	8	3
4	0	0	10	0	4	0	0	11	0
5	0	1	0	6	5	0	1	1	9
6	0	1	3	0	6	0	1	4	6
7	0	1	5	6	7	0	1	7	3
8	0	1	8	0	8	0	1	10	0
9	0	1	10	6	9	0	2	0	9
10	0	2	1	0	10	0	2	3	6
11	0	2	3	6	11	0	2	6	3

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	0	7	6	¼	0	0	8	3
½	0	1	3	0	½	0	1	4	6
¾	0	1	10	6	¾	0	2	0	9

Feet Long	8 Inches Broad			Feet Long	3½ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	3	0	1	0	3	3
2	0	6	0	2	0	6	6
3	0	9	0	3	0	9	9
4	1	0	0	4	1	1	0
5	1	3	0	5	1	4	3
6	1	6	0	6	1	7	6
7	1	9	0	7	1	10	9
8	2	0	0	8	2	2	0
9	2	3	0	9	2	5	3
10	2	6	0	10	2	8	6
11	2	9	0	11	2	11	9
12	3	0	0	12	3	3	0
13	3	3	0	13	3	6	3
14	3	6	0	14	3	9	6
15	3	9	0	15	4	0	9
16	4	0	0	16	4	4	0
17	4	3	0	17	4	7	3
18	4	6	0	18	4	10	6
19	4	9	0	19	5	1	9
20	5	0	0	20	5	5	0
21	5	3	0	21	5	8	3
22	5	6	0	22	5	11	6
23	5	9	0	23	6	2	9
24	6	0	0	24	6	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	0	3	0	1	0	0	3	3
2	0	0	6	0	2	0	0	6	6
3	0	0	9	0	3	0	0	9	9
4	0	1	0	0	4	0	1	1	0
5	0	1	3	0	5	0	1	4	3
6	0	1	6	0	6	0	1	7	6
7	0	1	9	0	7	0	1	10	9
8	0	2	0	0	8	0	2	2	0
9	0	2	3	0	9	0	2	5	3
10	0	2	6	0	10	0	2	8	6
11	0	2	9	0	11	0	2	11	9

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	0	9	0	¼	0	0	9	9
½	0	1	6	0	½	0	1	7	6
¾	0	2	3	0	¾	0	2	5	3

Feet Long	3½ Inches Broad			Feet Long	3¾ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	3	6	1	0	3	9
2	0	7	0	2	0	7	6
3	0	10	6	3	0	11	3
4	1	2	0	4	1	3	0
5	1	5	6	5	1	6	9
6	1	9	0	6	1	10	6
7	2	0	6	7	2	2	3
8	2	4	0	8	2	6	0
9	2	7	6	9	2	9	9
10	2	11	0	10	3	1	6
11	3	2	6	11	3	5	3
12	3	6	0	12	3	9	0
13	3	9	6	13	4	0	9
14	4	1	0	14	4	4	6
15	4	4	6	15	4	8	3
16	4	8	0	16	5	0	0
17	4	11	6	17	5	3	9
18	5	3	0	18	5	7	6
19	5	6	6	19	5	11	3
20	5	10	0	20	6	3	0
21	6	1	6	21	6	6	9
22	6	5	0	22	6	10	6
23	6	8	6	23	7	2	3
24	7	0	0	24	7	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	0	3	6	1	0	0	3	9
2	0	0	7	0	2	0	0	7	6
3	0	0	10	6	3	0	0	11	3
4	0	1	2	0	4	0	1	3	0
5	0	1	5	6	5	0	1	6	9
6	0	1	9	0	6	0	1	10	6
7	0	2	0	6	7	0	2	2	3
8	0	2	4	0	8	0	2	6	0
9	0	2	7	6	9	0	2	9	9
10	0	2	11	0	10	0	3	1	6
11	0	3	2	6	11	0	3	5	3

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	0	10	6	¼	0	0	11	3
½	0	1	9	0	½	0	1	10	6
¾	0	2	7	6	¾	0	2	9	9

Feet Long	4 Inches Broad			Feet Long	4½ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	4	0	1	0	4	3
2	0	8	0	2	0	8	6
3	1	0	0	3	1	0	9
4	1	4	0	4	1	5	0
5	1	8	0	5	1	9	3
6	2	0	0	6	2	1	6
7	2	4	0	7	2	5	9
8	2	8	0	8	2	10	0
9	3	0	0	9	3	2	3
10	3	4	0	10	3	6	6
11	3	8	0	11	3	10	9
12	4	0	0	12	4	3	0
13	4	4	0	13	4	7	3
14	4	8	0	14	4	11	6
15	5	0	0	15	5	3	9
16	5	4	0	16	5	8	0
17	5	8	0	17	6	0	3
18	6	0	0	18	6	4	6
19	6	4	0	19	6	8	9
20	6	8	0	20	7	1	0
21	7	0	0	21	7	5	3
22	7	4	0	22	7	9	6
23	7	8	0	23	8	1	9
24	8	0	0	24	8	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	0	4	0	1	0	0	4	3
2	0	0	8	0	2	0	0	8	6
3	0	1	0	0	3	0	1	0	9
4	0	1	4	0	4	0	1	5	0
5	0	1	8	0	5	0	1	9	3
6	0	2	0	0	6	0	2	1	6
7	0	2	4	0	7	0	2	5	9
8	0	2	8	0	8	0	2	10	0
9	0	3	0	0	9	0	3	2	3
10	0	3	4	0	10	0	3	6	6
11	0	3	8	0	11	0	3	10	9

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	1	0	0	¼	0	1	0	9
½	0	2	0	0	½	0	2	1	6
¾	0	3	0	0	¾	0	3	2	3

Feet Long	4¼ Inches Broad			Feet Long	4¾ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	4	6	1	0	4	9
2	0	9	0	2	0	9	6
3	1	1	6	3	1	2	3
4	1	6	0	4	1	7	0
5	1	10	6	5	1	11	9
6	2	3	0	6	2	4	6
7	2	7	6	7	2	9	3
8	3	0	0	8	3	2	0
9	3	4	6	9	3	6	9
10	3	9	0	10	3	11	6
11	4	1	6	11	4	4	3
12	4	6	0	12	4	9	0
13	4	10	6	13	5	1	9
14	5	3	0	14	5	6	6
15	5	7	6	15	5	11	3
16	6	0	0	16	6	4	0
17	6	4	6	17	6	8	9
18	6	9	0	18	7	1	6
19	7	1	6	19	7	6	3
20	7	6	0	20	7	11	0
21	7	10	6	21	8	3	9
22	8	3	0	22	8	8	6
23	8	7	6	23	9	1	3
24	9	0	0	24	9	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	0	4	6	1	0	0	4	9
2	0	0	9	0	2	0	0	9	6
3	0	1	1	6	3	0	1	2	3
4	0	1	6	0	4	0	1	7	0
5	0	1	10	6	5	0	1	11	9
6	0	2	3	0	6	0	2	4	6
7	0	2	7	6	7	0	2	9	3
8	0	3	0	0	8	0	3	2	0
9	0	3	4	6	9	0	3	6	9
10	0	3	9	0	10	0	3	11	6
11	0	4	1	6	11	0	4	4	3

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	1	1	6	¼	0	1	2	3
½	0	2	3	0	½	0	2	4	6
¾	0	3	4	6	¾	0	3	6	9

Feet Long	5 Inches Broad			Feet Long	5½ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	5	0	1	0	5	3
2	0	10	0	2	0	10	6
3	1	3	0	3	1	3	9
4	1	8	0	4	1	9	0
5	2	1	0	5	2	2	3
6	2	6	0	6	2	7	6
7	2	11	0	7	3	0	9
8	3	4	0	8	3	6	0
9	3	9	0	9	3	11	3
10	4	2	0	10	4	4	6
11	4	7	0	11	4	9	9
12	5	0	0	12	5	3	0
13	5	5	0	13	5	8	3
14	5	10	0	14	6	1	6
15	6	3	0	15	6	6	9
16	6	8	0	16	7	0	0
17	7	1	0	17	7	5	3
18	7	6	0	18	7	10	6
19	7	11	0	19	8	3	9
20	8	4	0	20	8	9	0
21	8	9	0	21	9	2	3
22	9	2	0	22	9	7	6
23	9	7	0	23	10	0	9
24	10	0	0	24	10	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	0	5	0	1	0	0	5	3
2	0	0	10	0	2	0	0	10	6
3	0	1	3	0	3	0	1	3	9
4	0	1	8	0	4	0	1	9	0
5	0	2	1	0	5	0	2	2	3
6	0	2	6	0	6	0	2	7	6
7	0	2	11	0	7	0	3	0	9
8	0	3	4	0	8	0	3	6	0
9	0	3	9	0	9	0	3	11	3
10	0	4	2	0	10	0	4	4	6
11	0	4	7	0	11	0	4	9	9

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	1	3	0	¼	0	1	3	9
½	0	2	6	0	½	0	2	7	6
¾	0	3	9	0	¾	0	3	11	3

Feet Long	5½ Inches Broad			Feet Long	5¾ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	5	6	1	0	5	9
2	0	11	0	2	0	11	6
3	1	4	6	3	1	5	3
4	1	10	0	4	1	11	0
5	2	3	6	5	2	4	9
6	2	9	0	6	2	10	6
7	3	2	6	7	3	4	3
8	3	8	0	8	3	10	0
9	4	1	6	9	4	3	9
10	4	7	0	10	4	9	6
11	5	0	6	11	5	3	3
12	5	6	0	12	5	9	0
13	5	11	6	13	6	2	9
14	6	5	0	14	6	8	6
15	6	10	6	15	7	2	3
16	7	4	0	16	7	8	0
17	7	9	6	17	8	1	9
18	8	3	0	18	8	7	6
19	8	8	6	19	9	1	3
20	9	2	0	20	9	7	0
21	9	7	6	21	10	0	9
22	10	1	0	22	10	6	6
23	10	6	6	23	11	0	3
24	11	0	0	24	11	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	0	5	6	1	0	0	5	9
2	0	0	11	0	2	0	0	11	6
3	0	1	4	6	3	0	1	5	3
4	0	1	10	0	4	0	1	11	0
5	0	2	3	6	5	0	2	4	9
6	0	2	9	0	6	0	2	10	6
7	0	3	2	6	7	0	3	4	3
8	0	3	8	0	8	0	3	10	0
9	0	4	1	6	9	0	4	3	9
10	0	4	7	0	10	0	4	9	6
11	0	5	0	6	11	0	5	3	3

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	1	4	6	¼	0	1	5	3
½	0	2	9	0	½	0	2	10	6
¾	0	4	1	6	¾	0	4	3	9

Feet Long	6 Inches Broad			Feet Long	6½ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	6	0	1	0	6	3
2	1	0	0	2	1	0	6
3	1	6	0	3	1	6	9
4	2	0	0	4	2	1	0
5	2	6	0	5	2	7	3
6	3	0	0	6	3	1	6
7	3	6	0	7	3	7	9
8	4	0	0	8	4	2	0
9	4	6	0	9	4	8	3
10	5	0	0	10	5	2	6
11	5	6	0	11	5	8	9
12	6	0	0	12	6	3	0
13	6	6	0	13	6	9	3
14	7	0	0	14	7	3	6
15	7	6	0	15	7	9	9
16	8	0	0	16	8	4	0
17	8	6	0	17	8	10	3
18	9	0	0	18	9	4	6
19	9	6	0	19	9	10	9
20	10	0	0	20	10	5	0
21	10	6	0	21	10	11	3
22	11	0	0	22	11	5	6
23	11	6	0	23	11	11	9
24	12	0	0	24	12	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	0	6	0	1	0	0	6	3
2	0	1	0	0	2	0	1	0	6
3	0	1	6	0	3	0	1	6	9
4	0	2	0	0	4	0	2	1	0
5	0	2	6	0	5	0	2	7	3
6	0	3	0	0	6	0	3	1	6
7	0	3	6	0	7	0	3	7	9
8	0	4	0	0	8	0	4	2	0
9	0	4	6	0	9	0	4	8	3
10	0	5	0	0	10	0	5	2	6
11	0	5	6	0	11	0	5	8	9

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	1	6	0	¼	0	1	6	9
½	0	3	0	0	½	0	3	1	6
¾	0	4	6	0	¾	0	4	8	3

Feet Long	6½ Inches Broad			Feet Long	6¾ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	6	6	1	0	6	9
2	1	1	0	2	1	1	6
3	1	7	6	3	1	8	3
4	2	2	0	4	2	3	0
5	2	8	6	5	2	9	9
6	3	3	0	6	3	4	6
7	3	9	6	7	3	11	3
8	4	4	0	8	4	6	0
9	4	10	6	9	5	0	9
10	5	5	0	10	5	7	6
11	5	11	6	11	6	2	3
12	6	6	0	12	6	9	0
13	7	0	6	13	7	3	9
14	7	7	0	14	7	10	6
15	8	1	6	15	8	5	3
16	8	8	0	16	9	0	0
17	9	2	6	17	9	6	9
18	9	9	0	18	10	1	6
19	10	3	6	19	10	8	3
20	10	10	0	20	11	3	0
21	11	4	6	21	11	9	9
22	11	11	0	22	12	4	6
23	12	5	6	23	12	11	3
24	13	0	0	24	13	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	0	6	6	1	0	0	6	9
2	0	1	1	0	2	0	1	1	6
3	0	1	7	6	3	0	1	8	3
4	0	2	2	0	4	0	2	3	0
5	0	2	8	6	5	0	2	9	9
6	0	3	3	0	6	0	3	4	6
7	0	3	9	6	7	0	3	11	3
8	0	4	4	0	8	0	4	6	0
9	0	4	10	6	9	0	5	0	9
10	0	5	5	0	10	0	5	7	6
11	0	5	11	6	11	0	6	2	3

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	1	7	6	¼	0	1	8	3
½	0	3	3	0	½	0	3	4	6
¾	0	4	10	6	¾	0	5	0	9

Feet Long	7 Inches Broad			Feet Long	7½ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	7	0	1	0	7	3
2	1	2	0	2	1	2	6
3	1	9	0	3	1	9	9
4	2	4	0	4	2	5	0
5	2	11	0	5	3	0	3
6	3	6	0	6	3	7	6
7	4	1	0	7	4	2	9
8	4	8	0	8	4	10	0
9	5	3	0	9	5	5	3
10	5	10	0	10	6	0	6
11	6	5	0	11	6	7	9
12	7	0	0	12	7	3	0
13	7	7	0	13	7	10	3
14	8	2	0	14	8	5	6
15	8	9	0	15	9	0	9
16	9	4	0	16	9	8	0
17	9	11	0	17	10	3	3
18	10	6	0	18	10	10	6
19	11	1	0	19	11	5	9
20	11	8	0	20	12	1	0
21	12	3	0	21	12	8	3
22	12	10	0	22	13	3	6
23	13	5	0	23	13	10	6
24	14	0	0	24	14	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	0	7	0	1	0	0	7	3
2	0	1	2	0	2	0	1	2	6
3	0	1	9	0	3	0	1	9	9
4	0	2	4	0	4	0	2	5	0
5	0	2	11	0	5	0	3	0	3
6	0	3	6	0	6	0	3	7	6
7	0	4	1	0	7	0	4	2	9
8	0	4	8	0	8	0	4	10	0
9	0	5	3	0	9	0	5	5	3
10	0	5	10	0	10	0	6	0	6
11	0	6	5	0	11	0	6	7	9

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	1	9	0	¼	0	1	9	9
½	0	3	6	0	½	0	3	7	6
¾	0	5	3	0	¾	0	5	5	3

Feet Long	7½ Inches Broad			Feet Long	7¾ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	7	6	1	0	7	9
2	1	3	0	2	1	3	6
3	1	10	6	3	1	11	3
4	2	6	0	4	2	7	0
5	3	1	6	5	3	2	9
6	3	9	0	6	3	10	6
7	4	4	6	7	4	6	3
8	5	0	0	8	5	2	0
9	5	7	6	9	5	9	9
10	6	3	0	10	6	5	6
11	6	10	6	11	7	1	3
12	7	6	0	12	7	9	0
13	8	1	6	13	8	4	9
14	8	9	0	14	9	0	6
15	9	4	6	15	9	8	3
16	10	0	0	16	10	4	0
17	10	7	6	17	10	11	9
18	11	3	0	18	11	7	6
19	11	10	6	19	12	3	3
20	12	6	0	20	12	11	0
21	13	1	6	21	13	6	9
22	13	9	0	22	14	2	6
23	14	4	9	23	14	10	3
24	15	0	0	24	15	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	0	7	6	1	0	0	7	0
2	0	1	3	0	2	0	1	3	6
3	0	1	10	6	3	0	1	11	3
4	0	2	6	0	4	0	2	7	0
5	0	3	1	6	5	0	3	2	9
6	0	3	9	0	6	0	3	10	6
7	0	4	4	6	7	0	4	6	3
8	0	5	0	0	8	0	5	2	0
9	0	5	7	6	9	0	5	9	9
10	0	6	3	0	10	0	6	5	6
11	0	6	10	6	11	0	7	1	3

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	1	10	6	¼	0	1	11	3
½	0	3	9	0	½	0	3	10	6
¾	0	5	7	6	¾	0	5	9	9

8 Inches Broad				8½ Inches Broad			
Feet Long	Ft.	In.	Pa.	Feet Long	Ft.	In.	Pa.
1	0	8	0	1	0	8	3
2	1	4	0	2	1	4	6
3	2	0	0	3	2	0	9
4	2	8	0	4	2	9	0
5	3	4	0	5	3	5	3
6	4	0	0	6	4	1	6
7	4	8	0	7	4	9	9
8	5	4	0	8	5	6	0
9	6	0	0	9	6	2	3
10	6	8	0	10	6	10	6
11	7	4	0	11	7	6	9
12	8	0	0	12	8	3	0
13	8	8	0	13	8	11	3
14	9	4	0	14	9	7	6
15	10	0	0	15	10	3	9
16	10	8	0	16	11	0	0
17	11	4	0	17	11	8	3
18	12	0	0	18	12	4	6
19	12	8	0	19	13	0	9
20	13	4	0	20	13	9	0
21	14	0	0	21	14	5	3
22	14	8	0	22	15	1	6
23	15	4	0	23	15	9	9
24	16	0	0	24	16	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	0	8	0	1	0	0	8	3
2	0	1	4	0	2	0	1	4	6
3	0	2	0	0	3	0	2	0	9
4	0	2	8	0	4	0	2	9	0
5	0	3	4	0	5	0	3	5	3
6	0	4	0	0	6	0	4	1	6
7	0	4	8	0	7	0	4	9	9
8	0	5	4	0	8	0	5	6	0
9	0	6	0	0	9	0	6	2	3
10	0	6	8	0	10	0	6	10	6
11	0	7	4	0	11	0	7	6	9

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	2	0	0	¼	0	2	0	9
½	0	4	0	0	½	0	4	1	6
¾	0	6	0	0	¾	0	6	2	3

8½ Inches Broad				8¾ Inches Broad			
Feet Long	Ft.	In.	Pa.	Feet Long	Ft.	In.	Pa.
1	0	8	6	1	0	8	9
2	1	5	0	2	1	5	6
3	2	1	6	3	2	2	3
4	2	10	0	4	2	11	0
5	3	6	6	5	3	7	9
6	4	3	0	6	4	4	6
7	4	11	6	7	5	1	3
8	5	8	0	8	5	10	0
9	6	4	6	9	6	6	9
10	7	1	0	10	7	3	6
11	7	9	6	11	8	0	3
12	8	6	0	12	8	9	0
13	9	2	6	13	9	5	9
14	9	11	0	14	10	2	6
15	10	7	6	15	10	11	3
16	11	4	0	16	11	8	0
17	12	0	6	17	12	4	9
18	12	9	0	18	13	1	6
19	13	5	6	19	13	10	3
20	14	2	0	20	14	7	0
21	14	10	6	21	15	3	9
22	15	7	0	22	16	0	6
23	16	3	6	23	16	9	3
24	17	0	0	24	17	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	0	8	6	1	0	0	8	9
2	0	1	5	0	2	0	1	5	6
3	0	2	1	6	3	0	2	2	3
4	0	2	10	0	4	0	2	11	0
5	0	3	6	6	5	0	3	7	9
6	0	4	3	0	6	0	4	4	6
7	0	4	11	6	7	0	5	1	3
8	0	5	8	0	8	0	5	10	0
9	0	6	4	6	9	0	6	6	9
10	0	7	1	0	10	0	7	3	6
11	0	7	9	6	11	0	8	0	3

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	2	1	6	¼	0	2	2	3
½	0	4	3	0	½	0	4	4	6
¾	0	6	4	6	¾	0	6	6	9

Feet Long	9 Inches Broad			Feet Long	9½ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	9	0	1	0	9	3
2	1	6	0	2	1	6	6
3	2	3	0	3	2	3	9
4	3	0	0	4	3	1	0
5	3	9	0	5	3	10	3
6	4	6	0	6	4	7	6
7	5	3	0	7	5	4	9
8	6	0	0	8	6	2	0
9	6	9	0	9	6	11	3
10	7	6	0	10	7	8	6
11	8	3	0	11	8	5	9
12	9	0	0	12	9	3	0
13	9	9	0	13	10	0	3
14	10	6	0	14	10	9	6
15	11	3	0	15	11	6	9
16	12	0	0	16	12	4	0
17	12	9	0	17	13	1	3
18	13	6	0	18	13	10	6
19	14	3	0	19	14	7	9
20	15	0	0	20	15	5	0
21	15	9	0	21	16	2	3
22	16	6	0	22	16	11	6
23	17	3	0	23	17	8	9
24	18	0	0	24	18	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	0	9	0	1	0	0	9	3
2	0	1	6	0	2	0	1	6	6
3	0	2	3	0	3	0	2	3	9
4	0	3	0	0	4	0	3	1	0
5	0	3	9	0	5	0	3	10	3
6	0	4	6	0	6	0	4	7	6
7	0	5	3	0	7	0	5	4	9
8	0	6	0	0	8	0	6	2	0
9	0	6	9	0	9	0	6	11	3
10	0	7	6	0	10	0	7	8	6
11	0	8	3	0	11	0	8	5	9

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	2	3	0	¼	0	2	3	9
½	0	4	6	0	½	0	4	7	6
¾	0	6	9	0	¾	0	6	11	3

Feet Long	9½ Inches Broad			Feet Long	9¾ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	9	6	1	0	9	9
2	1	7	0	2	1	7	6
3	2	4	6	3	2	5	3
4	3	2	0	4	3	3	0
5	3	11	6	5	4	0	9
6	4	9	0	6	4	10	6
7	5	6	6	7	5	8	3
8	6	4	0	8	6	6	0
9	7	1	6	9	7	3	9
10	7	11	0	10	8	1	6
11	8	8	6	11	8	11	3
12	9	6	0	12	9	9	0
13	10	3	6	13	10	6	9
14	11	1	0	14	11	4	6
15	11	10	6	15	12	2	3
16	12	8	0	16	13	0	0
17	13	5	6	17	13	7	9
18	14	3	0	18	14	7	6
19	15	0	6	19	15	5	3
20	15	10	0	20	16	3	0
21	16	7	6	21	17	0	9
22	17	5	0	22	17	10	6
23	18	2	6	23	18	8	3
24	19	0	0	24	19	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	0	9	6	1	0	0	9	9
2	0	1	7	0	2	0	1	7	6
3	0	2	4	6	3	0	2	5	3
4	0	3	2	0	4	0	3	3	0
5	0	3	11	6	5	0	4	0	9
6	0	4	9	0	6	0	4	10	6
7	0	5	6	6	7	0	5	8	3
8	0	6	4	0	8	0	6	6	0
9	0	7	1	6	9	0	7	3	9
10	0	7	11	0	10	0	8	1	6
11	0	8	8	6	11	0	8	11	3

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	2	4	6	¼	0	2	5	3
½	0	4	9	0	½	0	4	10	6
¾	0	7	1	6	¾	0	7	3	9

Feet Long	10 Inches Broad			Feet Long	10½ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	10	0	1	0	10	3
2	1	8	0	2	1	8	6
3	2	6	0	3	2	6	9
4	3	4	0	4	3	5	0
5	4	2	0	5	4	3	3
6	5	0	0	6	5	1	6
7	5	10	0	7	5	11	9
8	6	8	0	8	6	10	0
9	7	6	0	9	7	8	3
10	8	4	0	10	8	6	6
11	9	2	0	11	9	4	9
12	10	0	0	12	10	3	0
13	10	10	0	13	11	1	3
14	11	8	0	14	11	11	6
15	12	6	0	15	12	9	9
16	13	4	0	16	13	8	0
17	14	2	0	17	14	6	3
18	15	0	0	18	15	4	6
19	15	10	0	19	16	2	9
20	16	8	0	20	17	1	0
21	17	6	0	21	17	11	3
22	18	4	0	22	18	9	6
23	19	2	0	23	19	7	9
24	20	0	0	24	20	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	0	10	0	1	0	0	10	3
2	0	1	8	0	2	0	1	8	6
3	0	2	6	0	3	0	2	6	9
4	0	3	4	0	4	0	3	5	0
5	0	4	2	0	5	0	4	3	3
6	0	5	0	0	6	0	5	1	6
7	0	5	10	0	7	0	5	11	9
8	0	6	8	0	8	0	6	10	0
9	0	7	6	0	9	0	7	8	3
10	0	8	4	0	10	0	8	6	6
11	0	9	2	0	11	0	9	4	9

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	2	6	0	¼	0	2	6	9
½	0	5	0	0	½	0	5	1	6
¾	0	7	6	0	¾	0	7	8	3

Feet Long	10½ Inches Broad			Feet Long	10¾ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	10	6	1	0	10	9
2	1	9	0	2	1	9	6
3	2	7	6	3	2	8	3
4	3	6	0	4	3	7	0
5	4	4	6	5	4	5	9
6	5	3	0	6	5	4	6
7	6	1	6	7	6	3	3
8	7	0	0	8	7	2	0
9	7	10	6	9	8	0	9
10	8	9	0	10	8	11	6
11	9	7	6	11	9	10	3
12	10	6	0	12	10	9	0
13	11	4	6	13	11	7	9
14	12	3	0	14	12	6	6
15	13	1	6	15	13	5	3
16	14	0	0	16	14	4	0
17	14	10	6	17	15	2	9
18	15	9	0	18	16	1	6
19	16	7	6	19	17	0	3
20	17	6	0	20	17	11	0
21	18	4	6	21	18	9	9
22	19	3	0	22	19	8	6
23	20	1	6	23	20	7	3
24	21	0	0	24	21	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	0	10	6	1	0	0	10	9
2	0	1	9	0	2	0	1	9	6
3	0	2	7	6	3	0	2	8	3
4	0	3	6	0	4	0	3	7	0
5	0	4	4	6	5	0	4	5	9
6	0	5	3	0	6	0	5	4	6
7	0	6	1	6	7	0	6	3	3
8	0	7	0	0	8	0	7	2	0
9	0	7	10	6	9	0	8	0	9
10	0	8	9	0	10	0	8	11	6
11	0	9	7	6	11	0	9	10	3

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	2	7	6	¼	0	2	8	3
½	0	5	3	0	½	0	5	4	6
¾	0	7	10	6	¾	0	8	0	9

Feet Long	11 Inches Broad			Feet Long	11½ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	11	0	1	0	11	3
2	1	10	0	2	1	10	6
3	2	9	0	3	2	9	9
4	3	8	0	4	3	9	0
5	4	7	0	5	4	8	3
6	5	6	0	6	5	7	6
7	6	5	0	7	6	6	9
8	7	4	0	8	7	6	0
9	8	3	0	9	8	5	3
10	9	2	0	10	9	4	6
11	10	1	0	11	10	3	9
12	11	0	0	12	11	3	0
13	11	11	0	13	12	2	3
14	12	10	0	14	13	1	6
15	13	9	0	15	14	0	9
16	14	8	0	16	15	0	0
17	15	7	0	17	15	11	3
18	16	6	0	18	16	10	6
19	17	5	0	19	17	9	9
20	18	4	0	20	18	9	0
21	19	3	0	21	19	8	3
22	20	2	0	22	20	7	6
23	21	1	0	23	21	6	9
24	22	0	0	24	22	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	0	11	0	1	0	0	11	3
2	0	1	10	0	2	0	1	10	6
3	0	2	9	0	3	0	2	9	9
4	0	3	8	0	4	0	3	9	0
5	0	4	7	0	5	0	4	8	3
6	0	5	6	0	6	0	5	7	6
7	0	6	5	0	7	0	6	6	9
8	0	7	4	0	8	0	7	6	0
9	0	8	3	0	9	0	8	5	3
10	0	9	2	0	10	0	9	4	6
11	0	10	1	0	11	0	10	3	9

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	2	9	0	¼	0	2	9	9
½	0	5	6	0	½	0	5	7	6
¾	0	8	3	0	¾	0	8	5	3

Feet Long	11½ Inches Broad			Feet Long	11¾ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	0	11	6	1	0	11	9
2	1	11	0	2	1	11	6
3	2	10	6	3	2	11	3
4	3	10	0	4	3	11	0
5	4	9	6	5	4	10	9
6	5	9	0	6	5	10	6
7	6	8	6	7	6	10	3
8	7	8	0	8	7	10	0
9	8	7	6	9	8	9	9
10	9	7	0	10	9	9	6
11	10	6	6	11	10	9	3
12	11	6	0	12	11	9	0
13	12	5	6	13	12	8	9
14	13	5	0	14	13	8	6
15	14	4	6	15	14	8	3
16	15	4	0	16	15	8	0
17	16	3	6	17	16	7	9
18	17	3	0	18	17	7	6
19	18	2	6	19	18	7	3
20	19	2	0	20	19	7	0
21	20	1	6	21	20	6	9
22	21	1	0	22	21	6	6
23	22	0	6	23	22	6	3
24	23	0	0	24	23	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	0	11	6	1	0	0	11	9
2	0	1	11	0	2	0	1	11	6
3	0	2	10	6	3	0	2	11	3
4	0	3	10	0	4	0	3	11	0
5	0	4	9	6	5	0	4	10	9
6	0	5	9	0	6	0	5	10	6
7	0	6	8	6	7	0	6	10	3
8	0	7	8	0	8	0	7	10	0
9	0	8	7	6	9	0	8	9	9
10	0	9	7	0	10	0	9	9	6
11	0	10	6	6	11	0	10	9	3

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	2	10	6	¼	0	2	11	3
½	0	5	9	0	½	0	5	10	6
¾	0	8	7	6	¾	0	8	9	9

Feet Long	12 Inches Broad			Feet Long	12½ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	1	0	0	1	1	0	3
2	2	0	0	2	2	0	6
3	3	0	0	3	3	0	9
4	4	0	0	4	4	1	0
5	5	0	0	5	5	1	3
6	6	0	0	6	6	1	6
7	7	0	0	7	7	1	9
8	8	0	0	8	8	2	0
9	9	0	0	9	9	2	3
10	10	0	0	10	10	2	6
11	11	0	0	11	11	2	9
12	12	0	0	12	12	3	0
13	13	0	0	13	13	3	3
14	14	0	0	14	14	3	6
15	15	0	0	15	15	3	9
16	16	0	0	16	16	4	0
17	17	0	0	17	17	4	3
18	18	0	0	18	18	4	6
19	19	0	0	19	19	4	9
20	20	0	0	20	20	5	0
21	21	0	0	21	21	5	3
22	22	0	0	22	22	5	6
23	23	0	0	23	23	5	9
24	24	0	0	24	24	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	1	0	0	1	0	1	0	3
2	0	2	0	0	2	0	2	0	6
3	0	3	0	0	3	0	3	0	9
4	0	4	0	0	4	0	4	1	0
5	0	5	0	0	5	0	5	1	3
6	0	6	0	0	6	0	6	1	6
7	0	7	0	0	7	0	7	1	9
8	0	8	0	0	8	0	8	2	0
9	0	9	0	0	9	0	9	2	3
10	0	10	0	0	10	0	10	2	6
11	0	11	0	0	11	0	11	2	9

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	3	0	0	¼	0	3	0	9
½	0	6	0	0	½	0	6	1	6
¾	0	9	0	0	¾	0	9	2	3

Feet Long	12½ Inches Broad			Feet Long	12¾ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	1	0	6	1	1	0	9
2	2	1	0	2	2	1	6
3	3	1	6	3	3	2	3
4	4	2	0	4	4	3	0
5	5	2	6	5	5	3	9
6	6	3	0	6	6	4	6
7	7	3	6	7	7	5	3
8	8	4	0	8	8	6	0
9	9	4	6	9	9	6	9
10	10	5	0	10	10	7	6
11	11	5	6	11	11	8	3
12	12	6	0	12	12	9	0
13	13	6	6	13	13	9	9
14	14	7	0	14	14	10	6
15	15	7	6	15	15	11	3
16	16	8	0	16	17	0	0
17	17	8	6	17	18	0	9
18	18	9	0	18	19	1	6
19	19	9	6	19	20	2	3
20	20	10	0	20	21	3	0
21	21	10	6	21	22	3	9
22	22	11	0	22	23	4	6
23	23	11	6	23	24	5	3
24	25	0	0	24	25	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	1	0	6	1	0	1	0	9
2	0	2	1	0	2	0	2	1	6
3	0	3	1	6	3	0	3	2	3
4	0	4	2	0	4	0	4	3	0
5	0	5	2	6	5	0	5	3	9
6	0	6	3	0	6	0	6	4	6
7	0	7	3	6	7	0	7	5	3
8	0	8	4	0	8	0	8	6	0
9	0	9	4	6	9	0	9	6	9
10	0	10	5	0	10	0	10	7	6
11	0	11	5	6	11	0	11	8	3

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	3	1	6	¼	0	3	2	3
½	0	6	3	0	½	0	6	4	6
¾	0	9	4	6	¾	0	9	6	9

Feet Long	13 Inches Broad			Feet Long	13½ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	1	1	0	1	1	1	3
2	2	2	0	2	2	2	6
3	3	3	0	3	3	3	9
4	4	4	0	4	4	5	0
5	5	5	0	5	5	6	3
6	6	6	0	6	6	7	6
7	7	7	0	7	7	8	9
8	8	8	0	8	8	10	0
9	9	9	0	9	9	11	3
10	10	10	0	10	11	0	6
11	11	11	0	11	12	1	9
12	13	0	0	12	13	3	0
13	14	1	0	13	14	4	3
14	15	2	0	14	15	5	6
15	16	3	0	15	16	6	9
16	17	4	0	16	17	8	0
17	18	5	0	17	18	9	3
18	19	6	0	18	19	10	6
19	20	7	0	19	20	11	9
20	21	8	0	20	22	1	0
21	22	9	0	21	23	2	3
22	23	10	0	22	24	3	6
23	24	11	0	23	25	4	9
24	26	0	0	24	26	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	1	1	0	1	0	1	1	3
2	0	2	2	0	2	0	2	2	6
3	0	3	3	0	3	0	3	3	9
4	0	4	4	0	4	0	4	5	0
5	0	5	5	0	5	0	5	6	3
6	0	6	6	0	6	0	6	7	6
7	0	7	7	0	7	0	7	8	9
8	0	8	8	0	8	0	8	10	0
9	0	9	9	0	9	0	9	11	3
10	0	10	10	0	10	0	11	0	6
11	0	11	11	0	11	1	0	1	9

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	3	3	0	¼	0	3	3	9
½	0	6	6	0	½	0	6	7	6
¾	0	9	9	0	¾	0	9	11	3

Feet Long	18½ Inches Broad			Feet Long	18¾ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	1	1	6	1	1	1	9
2	2	3	0	2	2	3	6
3	3	4	6	3	3	5	3
4	4	6	0	4	4	7	0
5	5	7	6	5	5	8	9
6	6	9	0	6	6	10	6
7	7	10	6	7	8	0	3
8	9	0	0	8	9	2	0
9	10	1	6	9	10	3	9
10	11	3	0	10	11	5	6
11	12	4	6	11	12	7	3
12	13	6	0	12	13	9	0
13	14	7	6	13	14	10	9
14	15	9	0	14	16	0	6
15	16	10	6	15	17	2	3
16	18	0	0	16	18	4	0
17	19	1	6	17	19	5	9
18	20	3	0	18	20	7	6
19	21	4	6	19	21	9	3
20	22	6	0	20	22	11	0
21	23	7	6	21	24	0	9
22	24	9	0	22	25	2	6
23	25	10	6	23	26	4	3
24	27	0	0	24	27	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	1	1	6	1	0	1	1	9
2	0	2	3	0	2	0	2	3	6
3	0	3	4	6	3	0	3	5	3
4	0	4	6	0	4	0	4	7	0
5	0	5	7	6	5	0	5	8	9
6	0	6	9	0	6	0	6	10	6
7	0	7	10	6	7	0	8	0	3
8	0	9	0	0	8	0	9	2	0
9	0	10	1	6	9	0	10	3	9
10	0	11	3	0	10	0	11	5	6
11	1	0	4	6	11	1	0	7	3

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	3	4	6	¼	0	3	5	3
½	0	6	9	0	½	0	6	10	6
¾	0	10	1	6	¾	0	10	3	9

Feet Long	14 Inches Broad			Feet Long	14½ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	1	2	0	1	1	2	3
2	2	4	0	2	2	4	6
3	3	6	0	3	3	6	9
4	4	8	0	4	4	9	0
5	5	10	0	5	5	11	3
6	7	0	0	6	7	1	6
7	8	2	0	7	8	3	9
8	9	4	0	8	9	6	0
9	10	6	0	9	10	8	3
10	11	8	0	10	11	10	6
11	12	10	0	11	13	0	9
12	14	0	0	12	14	3	0
13	15	2	0	13	15	5	3
14	16	4	0	14	16	7	6
15	17	6	0	15	17	9	9
16	18	8	0	16	19	0	0
17	19	10	0	17	20	2	3
18	21	0	0	18	21	4	6
19	22	2	0	19	22	6	9
20	23	4	0	20	23	9	0
21	24	6	0	21	24	11	3
22	25	8	0	22	26	1	6
23	26	10	0	23	27	3	9
24	28	0	0	24	28	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	1	2	0	1	0	1	2	3
2	0	2	4	0	2	0	2	4	6
3	0	3	6	0	3	0	3	6	9
4	0	4	8	0	4	0	4	9	0
5	0	5	10	0	5	0	5	11	3
6	0	7	0	0	6	0	7	1	6
7	0	8	2	0	7	0	8	3	9
8	0	9	4	0	8	0	9	6	0
9	0	10	6	0	9	0	10	8	3
10	0	11	8	0	10	0	11	10	6
11	1	0	10	0	11	1	1	0	9

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	3	6	0	¼	0	3	6	9
½	0	7	0	0	½	0	7	1	6
¾	0	10	6	0	¾	0	10	8	3

Feet Long	14½ Inches Broad			Feet Long	14¾ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	1	2	6	1	1	2	9
2	2	5	0	2	2	5	6
3	3	7	6	3	3	8	3
4	4	10	0	4	4	11	0
5	6	0	6	5	6	1	9
6	7	3	0	6	7	4	6
7	8	5	6	7	8	7	3
8	9	8	0	8	9	10	0
9	10	10	6	9	11	0	9
10	12	1	0	10	12	3	6
11	13	3	6	11	13	6	3
12	14	6	0	12	14	9	0
13	15	8	6	13	15	11	9
14	16	11	0	14	17	2	6
15	18	1	6	15	18	5	3
16	19	4	0	16	19	8	0
17	20	6	6	17	20	10	9
18	21	9	0	18	22	1	6
19	22	11	6	19	23	4	3
20	24	2	0	20	24	7	0
21	25	4	6	21	25	9	9
22	26	7	0	22	27	0	6
23	27	9	6	23	28	3	3
24	29	0	0	24	29	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	1	2	6	1	0	1	2	9
2	0	2	5	0	2	0	2	5	6
3	0	3	7	6	3	0	3	8	3
4	0	4	10	0	4	0	4	11	0
5	0	6	0	6	5	0	6	1	9
6	0	7	3	0	6	0	7	4	6
7	0	8	5	6	7	0	8	7	3
8	0	9	8	0	8	0	9	10	0
9	0	10	10	6	9	0	11	0	9
10	1	0	1	0	10	1	0	3	6
11	1	1	3	6	11	1	1	6	3

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	3	7	6	¼	0	3	8	3
½	0	7	3	0	½	0	7	4	6
¾	0	10	10	6	¾	0	11	0	9

Feet Long	15 Inches Broad			Feet Long	15½ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	1	3	0	1	1	3	3
2	2	6	0	2	2	6	6
3	3	9	0	3	3	9	9
4	5	0	0	4	5	1	0
5	6	3	0	5	6	4	3
6	7	6	0	6	7	7	6
7	8	9	0	7	8	10	9
8	10	0	0	8	10	2	0
9	11	3	0	9	11	5	3
10	12	6	0	10	12	8	6
11	13	9	0	11	13	11	9
12	15	0	0	12	15	3	0
13	16	3	0	13	16	6	3
14	17	6	0	14	17	9	6
15	18	9	0	15	19	0	9
16	20	0	0	16	20	4	0
17	21	3	0	17	21	7	3
18	22	6	0	18	22	10	6
19	23	9	0	19	24	1	9
20	25	0	0	20	25	5	0
21	26	3	0	21	26	8	3
22	27	6	0	22	27	11	6
23	28	9	0	23	29	2	9
24	30	0	0	24	30	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	1	3	0	1	0	1	3	3
2	0	2	6	0	2	0	2	6	6
3	0	3	9	0	3	0	3	9	9
4	0	5	0	0	4	0	5	1	0
5	0	6	3	0	5	0	6	4	3
6	0	7	6	0	6	0	7	7	6
7	0	8	9	0	7	0	8	10	9
8	0	10	0	0	8	0	10	2	0
9	0	11	3	0	9	0	11	5	3
10	1	0	6	0	10	1	0	8	6
11	1	1	9	0	11	1	1	11	9

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	3	9	0	¼	0	3	9	9
½	0	7	6	0	½	0	7	7	6
¾	0	11	3	0	¾	0	11	5	3

Feet Long	15½ Inches Broad			Feet Long	15¾ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	1	3	6	1	1	3	9
2	2	7	0	2	2	7	6
3	3	10	6	3	3	11	3
4	5	2	0	4	5	3	0
5	6	5	6	5	6	6	9
6	7	9	0	6	7	10	6
7	9	0	6	7	9	2	3
8	10	4	0	8	10	6	0
9	11	7	6	9	11	9	9
10	12	11	0	10	13	1	6
11	14	2	6	11	14	5	3
12	15	6	0	12	15	9	0
13	16	9	6	13	17	0	9
14	18	1	0	14	18	4	6
15	19	4	6	15	19	8	3
16	20	8	0	16	21	0	0
17	21	11	6	17	22	3	9
18	23	3	0	18	23	7	6
19	24	6	6	19	24	11	3
20	25	10	0	20	26	3	0
21	27	1	6	21	27	6	9
22	28	5	0	22	28	10	6
23	29	8	6	23	30	2	3
24	31	0	0	24	31	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	1	3	6	1	0	1	3	9
2	0	2	7	0	2	0	2	7	6
3	0	3	10	6	3	0	3	11	3
4	0	5	2	0	4	0	5	3	0
5	0	6	5	6	5	0	6	6	9
6	0	7	9	0	6	0	7	10	6
7	0	9	0	6	7	0	9	2	3
8	0	10	4	0	8	0	10	6	0
9	0	11	7	6	9	0	11	9	9
10	1	0	11	0	10	1	1	1	6
11	1	2	2	6	11	1	2	5	3

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	3	10	6	¼	0	3	11	3
½	0	7	9	0	½	0	7	10	6
¾	0	11	7	6	¾	0	11	9	9

Feet Long	16 Inches Broad			Feet Long	16½ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	1	4	0	1	1	4	3
2	2	8	0	2	2	8	6
3	4	0	0	3	4	0	9
4	5	4	0	4	5	5	0
5	6	8	0	5	6	9	3
6	8	0	0	6	8	1	6
7	9	4	0	7	9	5	9
8	10	8	0	8	10	10	0
9	12	0	0	9	12	2	3
10	13	4	0	10	13	6	6
11	14	8	0	11	14	10	9
12	16	0	0	12	16	3	0
13	17	4	0	13	17	7	3
14	18	8	0	14	18	11	6
15	20	0	0	15	20	3	9
16	21	4	0	16	21	8	0
17	22	8	0	17	23	0	3
18	24	0	0	18	24	4	6
19	25	4	0	19	25	8	9
20	26	8	0	20	27	1	0
21	28	0	0	21	28	5	3
22	29	4	0	22	29	9	6
23	30	8	0	23	31	1	9
24	32	0	0	24	33	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	1	4	0	1	0	1	4	3
2	0	2	8	0	2	0	2	8	6
3	0	4	0	0	3	0	4	0	9
4	0	5	4	0	4	0	5	5	0
5	0	6	8	0	5	0	6	9	3
6	0	8	0	0	6	0	8	1	6
7	0	9	4	0	7	0	9	5	9
8	0	10	8	0	8	0	10	10	0
9	1	0	0	0	9	1	0	2	3
10	1	1	4	0	10	1	1	6	6
11	1	2	8	0	11	1	2	10	9

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	4	0	0	¼	0	4	0	9
½	0	8	0	0	½	0	8	1	6
¾	1	0	0	0	¾	1	0	2	3

Feet Long	16½ Inches Broad			Feet Long	16¾ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	1	4	6	1	1	4	9
2	2	9	0	2	2	9	6
3	4	1	6	3	4	2	3
4	5	6	0	4	5	7	0
5	6	10	6	5	6	11	9
6	8	3	0	6	8	4	6
7	9	7	6	7	9	9	3
8	11	0	0	8	11	2	0
9	12	4	6	9	12	6	9
10	13	9	0	10	13	11	6
11	15	1	6	11	15	4	3
12	16	6	0	12	16	9	0
13	17	10	6	13	18	1	9
14	19	3	0	14	19	6	6
15	20	7	6	15	20	11	3
16	22	0	0	16	22	4	0
17	23	4	6	17	23	8	9
18	24	9	0	18	25	1	6
19	26	1	6	19	26	6	3
20	27	6	0	20	27	11	0
21	28	10	6	21	29	3	9
22	30	3	0	22	30	8	6
23	31	7	6	23	32	1	3
24	33	0	0	24	33	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	1	4	6	1	0	1	4	9
2	0	2	9	0	2	0	2	9	6
3	0	4	1	6	3	0	4	2	3
4	0	5	6	0	4	0	5	7	0
5	0	6	10	6	5	0	6	11	9
6	0	8	3	0	6	0	8	4	6
7	0	9	7	6	7	0	9	9	3
8	0	11	0	0	8	0	11	2	0
9	1	0	4	6	9	1	0	6	9
10	1	1	9	0	10	1	1	11	6
11	1	3	1	6	11	1	3	4	3

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	4	1	6	¼	0	4	2	3
½	0	8	3	0	½	0	8	4	6
¾	1	0	4	6	¾	1	0	6	9

Feet Long	17 Inches Broad			Feet Long	17½ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	1	5	0	1	1	5	3
2	2	10	0	2	2	10	6
3	4	3	0	3	4	3	9
4	5	8	0	4	5	9	0
5	7	1	0	5	7	2	3
6	8	6	0	6	8	7	6
7	9	11	0	7	10	0	9
8	11	4	0	8	11	6	0
9	12	9	0	9	12	11	3
10	14	2	0	10	14	4	6
11	15	7	0	11	15	9	9
12	17	0	0	12	17	3	0
13	18	5	0	13	18	8	3
14	19	10	0	14	20	1	6
15	21	3	0	15	21	6	9
16	22	8	0	16	23	0	0
17	24	1	0	17	24	5	3
18	25	6	0	18	25	10	6
19	26	11	0	19	27	3	9
20	28	4	0	20	28	9	0
21	29	9	0	21	30	2	3
22	31	2	0	22	31	7	6
23	32	7	0	23	33	0	9
24	34	0	0	24	34	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	1	5	0	1	0	1	5	3
2	0	2	10	0	2	0	2	10	6
3	0	4	3	0	3	0	4	3	9
4	0	5	8	0	4	0	5	9	0
5	0	7	1	0	5	0	7	2	3
6	0	8	6	0	6	0	8	7	6
7	0	9	11	0	7	0	10	0	9
8	0	11	4	0	8	0	11	6	0
9	1	0	9	0	9	1	0	11	3
10	1	2	2	0	10	1	2	4	6
11	1	3	7	0	11	1	3	9	9

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	4	3	0	¼	0	4	3	9
½	0	8	6	0	½	0	8	7	6
¾	1	0	9	0	¾	1	0	11	3

Feet Long	17½ Inches Broad			Feet Long	17¾ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	1	5	6	1	1	5	9
2	2	11	0	2	2	11	6
3	4	4	6	3	4	5	3
4	5	10	0	4	5	11	0
5	7	3	6	5	7	4	9
6	8	9	0	6	8	10	6
7	10	2	6	7	10	4	3
8	11	8	0	8	11	10	0
9	13	1	6	9	13	3	9
10	14	7	0	10	14	9	6
11	16	0	6	11	16	3	3
12	17	6	0	12	17	9	0
13	18	11	6	13	19	2	9
14	20	5	0	14	20	8	6
15	21	10	6	15	22	2	3
16	23	4	0	16	23	8	0
17	24	9	6	17	25	1	9
18	26	3	0	18	26	7	6
19	27	8	6	19	28	1	3
20	29	2	0	20	29	7	0
21	30	7	6	21	31	0	9
22	32	1	0	22	32	6	6
23	33	6	6	23	34	0	8
24	35	0	0	24	35	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	1	5	6	1	0	1	5	9
2	0	2	11	0	2	0	2	11	6
3	0	4	4	6	3	0	4	5	3
4	0	5	10	0	4	0	5	11	0
5	0	7	3	6	5	0	7	4	9
6	0	8	9	0	6	0	8	10	6
7	0	10	2	6	7	0	10	4	3
8	0	11	8	0	8	0	11	10	0
9	1	1	1	6	9	1	1	3	9
10	1	2	7	0	10	1	2	9	6
11	1	4	0	6	11	1	4	3	3

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	4	4	6	¼	0	4	5	3
½	0	8	9	0	½	0	8	10	6
¾	1	1	1	6	¾	1	1	3	9

Feet Long	18 Inches Broad			Feet Long	18½ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	1	6	0	1	1	6	3
2	3	0	0	2	3	0	6
3	4	6	0	3	4	6	9
4	6	0	0	4	6	1	0
5	7	6	0	5	7	7	3
6	9	0	0	6	9	1	6
7	10	6	0	7	10	7	9
8	12	0	0	8	12	2	0
9	13	6	0	9	13	8	3
10	15	0	0	10	15	2	6
11	16	6	0	11	16	8	9
12	18	0	0	12	18	3	0
13	19	6	0	13	19	9	3
14	21	0	0	14	21	3	6
15	22	6	0	15	22	9	9
16	24	0	0	16	24	4	0
17	25	6	0	17	25	10	3
18	27	0	0	18	27	4	6
19	28	6	0	19	28	10	9
20	30	0	0	20	30	5	0
21	31	6	0	21	31	11	3
22	33	0	0	22	33	5	6
23	34	6	0	23	34	11	9
24	36	0	0	24	36	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	1	6	0	1	0	1	6	3
2	0	3	0	0	2	0	3	0	6
3	0	4	6	0	3	0	4	6	9
4	0	6	0	0	4	0	6	1	0
5	0	7	6	0	5	0	7	7	3
6	0	9	0	0	6	0	9	1	6
7	0	10	6	0	7	0	10	7	6
8	1	0	0	0	8	1	0	2	0
9	1	1	6	0	9	1	1	8	3
10	1	3	0	0	10	1	3	2	6
11	1	4	6	0	11	1	4	8	9

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	4	6	0	¼	0	4	6	9
½	0	9	0	0	½	0	9	1	6
¾	1	1	6	0	¾	1	1	8	3

Feet Long	18½ Inches Broad			Feet Long	18¾ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	1	6	6	1	1	6	9
2	3	1	0	2	3	1	6
3	4	7	6	3	4	8	3
4	6	2	0	4	6	3	0
5	7	8	6	5	7	9	9
6	9	3	0	6	9	4	6
7	10	9	6	7	10	11	3
8	12	4	0	8	12	6	0
9	13	10	6	9	14	0	9
10	15	5	0	10	15	7	6
11	16	11	6	11	17	2	3
12	18	6	0	12	18	9	0
13	20	0	6	13	20	3	9
14	21	7	0	14	21	10	6
15	23	1	6	15	23	5	3
16	24	8	0	16	25	0	6
17	26	2	6	17	26	6	9
18	27	9	0	18	28	1	6
19	29	3	6	19	29	8	3
20	30	10	0	20	31	3	0
21	32	4	6	21	32	9	9
22	33	11	0	22	34	4	6
23	35	5	6	23	35	11	3
24	37	0	0	24	37	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	1	6	6	1	0	1	6	9
2	0	3	1	0	2	0	3	1	6
3	0	4	7	6	3	0	4	8	3
4	0	6	2	0	4	0	6	3	0
5	0	7	8	6	5	0	7	9	9
6	0	9	3	0	6	0	9	4	6
7	0	10	9	6	7	0	10	11	3
8	1	0	4	0	8	1	0	6	0
9	1	1	10	6	9	1	2	0	9
10	1	3	5	0	10	1	3	7	6
11	1	4	11	6	11	1	5	2	3

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	4	7	6	¼	0	4	8	3
½	0	9	3	0	½	0	9	4	6
¾	1	1	10	6	¾	1	2	0	9

Feet Long	19 Inches Broad			Feet Long	19½ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	1	7	0	1	1	7	3
2	3	2	0	2	3	2	6
3	4	9	0	3	4	9	9
4	6	4	0	4	6	5	0
5	7	11	0	5	8	0	3
6	9	6	0	6	9	7	6
7	11	1	0	7	11	2	9
8	12	8	0	8	12	10	0
9	14	3	0	9	14	5	3
10	15	10	0	10	16	0	6
11	17	5	0	11	17	7	9
12	19	0	0	12	19	3	0
13	20	7	0	13	20	10	3
14	22	2	0	14	22	5	6
15	23	9	0	15	24	0	9
16	25	4	0	16	25	8	0
17	26	11	0	17	27	3	3
18	28	6	0	18	28	10	6
19	30	1	0	19	30	5	9
20	31	8	0	20	32	1	0
21	33	3	0	21	33	8	3
22	34	10	0	22	35	3	6
23	36	5	0	23	36	10	9
24	38	0	0	24	38	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	1	7	0	1	0	1	7	3
2	0	3	2	0	2	0	3	2	6
3	0	4	9	0	3	0	4	9	9
4	0	6	4	0	4	0	6	5	0
5	0	7	11	0	5	0	8	0	3
6	0	9	6	0	6	0	9	7	6
7	0	11	1	0	7	0	11	2	9
8	1	0	8	0	8	1	0	10	0
9	1	2	3	0	9	1	2	5	3
10	1	3	10	0	10	1	4	0	6
11	1	5	5	0	11	1	5	7	9

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	4	9	0	¼	0	4	9	9
½	0	9	6	0	½	0	9	7	6
¾	1	2	3	0	¾	1	2	5	3

Feet Long	19½ Inches Broad			Feet Long	19¾ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	1	7	6	1	1	7	9
2	3	3	0	2	3	3	6
3	4	10	6	3	4	11	3
4	6	6	0	4	6	7	0
5	8	1	6	5	8	2	9
6	9	9	0	6	9	10	6
7	11	4	6	7	11	6	3
8	13	0	0	8	13	2	0
9	14	7	6	9	14	9	9
10	16	3	0	10	16	5	6
11	17	10	6	11	18	1	3
12	19	6	0	12	19	9	0
13	21	1	6	13	21	4	9
14	22	9	0	14	23	0	6
15	24	4	6	15	24	8	3
16	26	0	0	16	26	4	0
17	27	7	6	17	27	11	9
18	29	3	0	18	29	7	6
19	30	10	6	19	31	3	3
20	32	6	0	20	32	11	0
21	34	1	6	21	34	6	9
22	35	9	0	22	36	2	6
23	37	4	6	23	37	10	3
24	39	0	0	24	39	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	1	7	6	1	0	1	7	9
2	0	3	3	0	2	0	3	3	6
3	0	4	10	6	3	0	4	11	3
4	0	6	6	0	4	0	6	7	0
5	0	8	1	6	5	0	8	2	9
6	0	9	9	0	6	0	9	10	6
7	0	11	4	6	7	0	11	6	3
8	1	1	0	0	8	1	1	2	0
9	1	2	7	6	9	1	2	9	9
10	1	4	3	0	10	1	4	5	6
11	1	5	10	6	11	1	6	1	3

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	4	10	6	¼	0	4	11	3
½	0	9	9	0	½	0	9	10	6
¾	1	2	7	6	¾	1	2	9	9

Feet Long	20 Inches Broad			Feet Long	20½ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	1	8	0	1	1	8	3
2	3	4	0	2	3	4	6
3	5	0	0	3	5	0	9
4	6	8	0	4	6	9	0
5	8	4	0	5	8	5	3
6	10	0	0	6	10	1	6
7	11	8	0	7	11	9	9
8	13	4	0	8	13	6	0
9	15	0	0	9	15	2	3
10	16	8	0	10	16	10	6
11	18	4	0	11	18	6	9
12	20	0	0	12	20	3	0
13	21	8	0	13	21	11	3
14	23	4	0	14	23	7	6
15	25	0	0	15	25	3	9
16	26	8	0	16	27	0	0
17	28	4	0	17	28	8	3
18	30	0	0	18	30	4	6
19	31	8	0	19	32	0	9
20	33	4	0	20	33	9	0
21	35	0	0	21	35	5	3
22	36	8	0	22	37	1	6
23	38	4	0	23	38	9	9
24	40	0	0	24	40	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	1	8	0	1	0	1	8	3
2	0	3	4	0	2	0	3	4	6
3	0	5	0	0	3	0	5	0	9
4	0	6	8	0	4	0	6	9	0
5	0	8	4	0	5	0	8	5	3
6	0	10	0	0	6	0	10	1	6
7	0	11	8	0	7	0	11	9	9
8	1	1	4	0	8	1	1	6	0
9	1	3	0	0	9	1	3	2	3
10	1	4	8	0	10	1	4	10	6
11	1	6	4	0	11	1	6	6	9

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	5	0	0	¼	0	5	0	9
½	0	10	0	0	½	0	10	1	6
¾	1	3	0	0	¾	1	3	2	3

Feet Long	20½ Inches Broad			Feet Long	20¾ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	1	8	6	1	1	8	9
2	3	5	0	2	3	5	6
3	5	1	6	3	5	2	3
4	6	10	0	4	6	11	0
5	8	6	6	5	8	7	9
6	10	3	0	6	10	4	6
7	11	11	6	7	12	1	3
8	13	8	0	8	13	10	0
9	15	4	6	9	15	6	9
10	17	1	0	10	17	3	6
11	18	9	6	11	19	0	3
12	20	6	0	12	20	9	0
13	22	2	6	13	22	5	9
14	23	11	0	14	24	2	6
15	25	7	6	15	25	11	3
16	27	4	0	16	27	8	0
17	29	0	6	17	29	4	9
18	30	9	0	18	31	1	6
19	32	5	6	19	32	10	3
20	34	2	0	20	34	7	0
21	35	10	6	21	36	3	9
22	37	7	0	22	38	0	6
23	39	3	6	23	39	9	3
24	41	0	0	24	41	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	1	8	6	1	0	1	8	9
2	0	3	5	0	2	0	3	5	6
3	0	5	1	6	3	0	5	2	3
4	0	6	10	0	4	0	6	11	0
5	0	8	6	6	5	0	8	7	9
6	0	10	3	0	6	0	10	4	6
7	0	11	11	6	7	1	0	1	3
8	1	1	8	0	8	1	1	10	0
9	1	3	4	6	9	1	3	6	9
10	1	5	1	0	10	1	5	3	6
11	1	6	9	6	11	1	7	0	3

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	5	1	6	¼	0	5	2	3
½	0	10	3	0	½	0	10	4	6
¾	1	3	4	6	¾	1	3	6	9

Feet Long	21 Inches Broad			Feet Long	21½ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	1	9	0	1	1	9	3
2	3	6	0	2	3	6	6
3	5	3	0	3	5	3	9
4	7	0	0	4	7	1	0
5	8	9	0	5	8	10	3
6	10	6	0	6	10	7	6
7	12	3	0	7	12	4	9
8	14	0	0	8	14	2	0
9	15	9	0	9	15	11	3
10	17	6	0	10	17	8	6
11	19	3	0	11	19	5	9
12	21	0	0	12	21	3	0
13	22	9	0	13	23	0	3
14	24	6	0	14	24	9	6
15	26	3	0	15	26	6	9
16	28	0	0	16	28	4	0
17	29	9	0	17	30	1	3
18	31	6	0	18	31	10	6
19	33	3	0	19	33	7	9
20	35	0	0	20	35	5	0
21	36	9	0	21	37	2	3
22	38	6	0	22	38	11	6
23	40	3	0	23	40	8	9
24	42	0	0	24	42	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	1	9	0	1	0	1	9	3
2	0	3	6	0	2	0	3	6	6
3	0	5	3	0	3	0	5	3	9
4	0	7	0	0	4	0	7	1	0
5	0	8	9	0	5	0	8	10	3
6	0	10	6	0	6	0	10	7	6
7	1	0	3	0	7	1	0	4	9
8	1	2	0	0	8	1	2	2	0
9	1	3	9	0	9	1	3	11	3
10	1	5	6	0	10	1	5	8	6
11	1	7	3	0	11	1	7	5	9

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	5	3	0	¼	0	5	3	9
½	0	10	6	0	½	0	10	7	6
¾	1	3	9	0	¾	1	3	11	3

Feet Long	21½ Inches Broad			Feet Long	21¾ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	1	9	6	1	1	9	9
2	3	7	0	2	3	7	6
3	5	4	6	3	5	5	3
4	7	2	0	4	7	3	0
5	8	11	6	5	9	0	9
6	10	9	0	6	10	10	6
7	12	6	6	7	12	8	3
8	14	4	0	8	14	6	0
9	16	1	6	9	16	3	9
10	17	11	0	10	18	1	6
11	19	8	6	11	19	11	3
12	21	6	0	12	21	9	0
13	23	3	6	13	23	6	9
14	25	1	9	14	25	4	6
15	26	10	6	15	27	2	3
16	28	8	0	16	29	0	0
17	30	5	6	17	30	9	9
18	32	3	0	18	32	7	6
19	34	0	6	19	34	5	3
20	35	10	6	20	36	3	0
21	37	7	6	21	38	0	9
22	39	5	0	22	39	10	6
23	41	2	6	23	41	8	3
24	43	0	0	24	43	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	1	9	6	1	0	1	9	9
2	0	3	7	0	2	0	3	7	6
3	0	5	4	6	3	0	5	5	3
4	0	7	2	0	4	0	7	3	0
5	0	8	11	6	5	0	9	0	9
6	0	10	9	0	6	0	10	10	6
7	1	0	6	6	7	1	0	8	3
8	1	2	4	0	8	1	2	6	0
9	1	4	1	6	9	1	4	3	9
10	1	5	11	0	10	1	6	1	6
11	1	7	8	6	11	1	7	11	3

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	5	4	6	¼	0	5	5	3
½	0	10	9	0	½	0	10	10	6
¾	1	4	1	6	¾	1	4	3	9

Feet Long	22 Inches Broad			Feet Long	22½ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	1	10	0	1	1	10	3
2	3	8	0	2	3	8	6
3	5	6	0	3	5	6	9
4	7	4	0	4	7	5	0
5	9	2	0	5	9	3	3
6	11	0	0	6	11	1	6
7	12	10	0	7	12	11	9
8	14	8	0	8	14	10	0
9	16	6	0	9	16	8	3
10	18	4	0	10	18	6	6
11	20	2	0	11	20	4	9
12	22	0	0	12	22	3	0
13	23	10	0	13	24	1	3
14	25	8	0	14	25	11	6
15	27	6	0	15	27	9	9
16	29	4	0	16	29	8	0
17	31	2	0	17	31	6	3
18	33	0	0	18	33	4	6
19	34	10	0	19	35	2	9
20	36	8	0	20	37	1	0
21	38	6	0	21	38	11	3
22	40	4	0	22	40	9	6
23	42	2	0	23	42	7	9
24	44	0	0	24	44	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	1	10	0	1	0	1	10	3
2	0	3	8	0	2	0	3	8	6
3	0	5	6	0	3	0	5	6	9
4	0	7	4	0	4	0	7	5	0
5	0	9	2	0	5	0	9	3	3
6	0	11	0	0	6	0	11	1	6
7	1	0	10	0	7	1	0	11	9
8	1	2	8	0	8	1	2	10	0
9	1	4	6	0	9	1	4	8	3
10	1	6	4	0	10	1	6	6	6
11	1	8	2	0	11	1	8	4	9

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	5	6	0	¼	0	5	6	9
½	0	11	0	0	½	0	11	1	6
¾	1	4	6	0	¾	1	4	8	3

Feet Long	22½ Inches Broad			Feet Long	22¾ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	1	10	6	1	1	10	9
2	3	9	0	2	3	9	6
3	5	7	6	3	5	8	3
4	7	6	0	4	7	7	0
5	9	4	6	5	9	5	9
6	11	3	0	6	11	4	6
7	13	1	6	7	13	3	3
8	15	0	0	8	15	2	0
9	16	10	6	9	17	0	9
10	18	9	0	10	18	11	6
11	20	7	6	11	20	10	3
12	22	6	0	12	22	9	0
13	24	4	6	13	24	7	9
14	26	3	0	14	26	6	6
15	28	1	6	15	28	5	3
16	30	0	0	16	30	4	0
17	31	10	6	17	32	2	9
18	33	9	0	18	34	1	6
19	35	7	6	19	36	0	3
20	37	6	0	20	37	11	0
21	39	4	6	21	39	9	9
22	41	3	0	22	41	8	6
23	43	1	6	23	43	7	3
24	45	0	0	24	45	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	1	10	6	1	0	1	10	9
2	0	3	9	0	2	0	3	9	6
3	0	5	7	6	3	0	5	8	3
4	0	7	6	0	4	0	7	7	0
5	0	9	4	6	5	0	9	5	9
6	0	11	3	0	6	0	11	4	6
7	1	1	1	6	7	1	1	3	3
8	1	3	0	0	8	1	3	2	0
9	1	4	10	6	9	1	5	0	9
10	1	6	9	0	10	1	6	11	6
11	1	8	7	6	11	1	8	10	3

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	5	7	6	¼	0	5	8	3
½	0	11	3	0	½	0	11	4	6
¾	1	4	10	6	¾	1	5	0	9

Feet Long	23 Inches Broad			Feet Long	23½ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	1	11	0	1	1	11	3
2	3	10	0	2	3	10	6
3	5	9	0	3	5	9	9
4	7	8	0	4	7	9	0
5	9	7	0	5	9	8	3
6	11	6	0	6	11	7	6
7	13	5	0	7	13	6	9
8	15	4	0	8	15	6	0
9	17	3	0	9	17	5	3
10	19	2	0	10	19	4	6
11	21	1	0	11	21	3	9
12	23	0	0	12	23	3	0
13	24	11	0	13	25	2	3
14	26	10	0	14	27	1	6
15	28	9	0	15	29	0	9
16	30	8	0	16	31	0	0
17	32	7	0	17	32	11	3
18	34	6	0	18	34	10	6
19	36	5	0	19	36	9	9
20	38	4	0	20	38	9	0
21	40	3	0	21	40	8	3
22	42	2	0	22	42	7	6
23	44	1	0	23	44	6	9
24	46	0	0	24	46	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	1	11	0	1	0	1	11	3
2	0	3	10	0	2	0	3	10	6
3	0	5	9	0	3	0	5	9	9
4	0	7	8	0	4	0	7	9	0
5	0	9	7	0	5	0	9	8	3
6	0	11	6	0	6	0	11	7	6
7	1	1	5	0	7	1	1	6	9
8	1	3	4	0	8	1	3	6	0
9	1	5	3	0	9	1	5	5	3
10	1	7	2	0	10	1	7	4	6
11	1	9	1	0	11	1	9	3	9

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	5	9	0	¼	0	5	9	9
½	0	11	6	0	½	0	11	7	6
¾	1	5	3	0	¾	1	5	5	3

Feet Long	23½ Inches Broad			Feet Long	23¾ Inches Broad		
	Ft.	In.	Pa.		Ft.	In.	Pa.
1	1	11	6	1	1	11	9
2	3	11	0	2	3	11	6
3	5	10	6	3	5	11	3
4	7	10	0	4	7	11	0
5	9	9	6	5	9	10	9
6	11	9	0	6	11	10	6
7	13	8	6	7	13	10	3
8	15	8	0	8	15	10	0
9	17	7	6	9	17	9	9
10	19	7	0	10	19	9	6
11	21	6	6	11	21	9	3
12	23	6	0	12	23	9	0
13	25	5	6	13	25	8	9
14	27	5	0	14	27	8	6
15	29	4	6	15	29	8	3
16	31	4	0	16	31	8	0
17	33	3	6	17	33	7	9
18	35	3	0	18	35	7	6
19	37	2	6	19	37	7	3
20	39	2	0	20	39	7	0
21	41	1	6	21	41	6	9
22	43	1	0	22	43	6	6
23	45	0	6	23	45	6	3
24	47	0	0	24	47	6	0

Inch Long	Ft.	In.	Pa.	S.	Inch Long	Ft.	In.	Pa.	S.
1	0	1	11	6	1	0	1	11	9
2	0	3	11	0	2	0	3	11	6
3	0	5	10	6	3	0	5	11	3
4	0	7	10	0	4	0	7	11	0
5	0	9	9	6	5	0	9	10	9
6	0	11	9	0	6	0	11	10	6
7	1	1	8	6	7	1	1	10	3
8	1	3	8	0	8	1	3	10	0
9	1	5	7	6	9	1	5	9	9
10	1	7	7	0	10	1	7	9	6
11	1	9	6	6	11	1	9	9	3

Qrs. Inch Long	In.	Pa.	S.	T.	Qrs. Inch Long	In.	Pa.	S.	T.
¼	0	5	10	6	¼	0	5	11	3
½	0	11	9	0	½	0	11	10	6
¾	1	5	7	6	¾	1	5	9	9

Feet Long	24 Inches Broad		
	Ft.	In.	Pa.
1	2	0	0
2	4	0	0
3	6	0	0
4	8	0	0
5	10	0	0
6	12	0	0
7	14	0	0
8	16	0	0
9	18	0	0
10	20	0	0
11	22	0	0
12	24	0	0
13	26	0	0
14	28	0	0
15	30	0	0
16	32	0	0
17	34	0	0
18	36	0	0
19	38	0	0
20	40	0	0
21	42	0	0
22	44	0	0
23	46	0	0
24	48	0	0

Inch Long	Ft. In. Pa. S.			
	Ft.	In.	Pa.	S.
1	0	2	0	0
2	0	4	0	0
3	0	6	0	0
4	0	8	0	0
5	0	10	0	0
6	1	0	0	0
7	1	2	0	0
8	1	4	0	0
9	1	6	0	0
10	1	8	0	0
11	1	10	0	0

Qrs. Inch Long	In. Pa. S. T.			
	In.	Pa.	S.	T.
$\frac{1}{4}$	0	6	0	0
$\frac{1}{2}$	1	0	0	0
$\frac{3}{4}$	1	6	0	0

TABLES FOR FINDING

THE

WEIGHT OF IRON,

ON THE

BREADTH & THICKNESS being given.

**In the first three tables, the Iron is reckoned as one ft. long; and in the fourth and fifth, as one ft. square; and in the sixth as one superficial ft. The weight is given in pounds, and decimal parts of pounds.

I.--ROLLED & FLAT IRON.

Having found the breadth, in inches, in the top line, look for the thickness, also in inches, in the first column, and the corresponding figures, opposite those two, show the weight.

Brd.	Feet Long										
	1	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$	3	4
$\frac{1}{16}$	0.21	0.31	0.42	0.52	0.63	0.73	0.84	0.96	1.05	1.15	1.26
$\frac{1}{8}$	0.31	0.47	0.63	0.78	0.94	1.10	1.26	1.41	1.57	1.73	1.89
$\frac{3}{16}$	0.42	0.63	0.84	1.05	1.26	1.47	1.68	1.89	2.10	2.31	2.52
$\frac{1}{4}$	0.52	0.78	1.05	1.31	1.57	1.83	2.09	2.35	2.61	2.87	3.13
$\frac{5}{16}$	0.63	0.94	1.26	1.57	1.89	2.20	2.52	2.83	3.15	3.46	3.78
$\frac{3}{8}$	0.73	1.05	1.31	1.57	1.83	2.09	2.35	2.61	2.87	3.13	3.39
$\frac{7}{16}$	0.84	1.26	1.57	1.83	2.09	2.35	2.61	2.87	3.13	3.39	3.65
$\frac{1}{2}$	0.96	1.41	1.68	1.94	2.20	2.46	2.72	2.98	3.24	3.50	3.76
$\frac{9}{16}$	1.05	1.57	1.83	2.09	2.35	2.61	2.87	3.13	3.39	3.65	3.91
$\frac{5}{8}$	1.15	1.73	1.99	2.25	2.51	2.77	3.03	3.29	3.55	3.81	4.07
$\frac{11}{16}$	1.26	1.89	2.15	2.41	2.67	2.93	3.19	3.45	3.71	3.97	4.23
$\frac{3}{4}$	1.36	2.04	2.30	2.56	2.82	3.08	3.34	3.60	3.86	4.12	4.38
$\frac{7}{8}$	1.47	2.20	2.46	2.72	2.98	3.24	3.50	3.76	4.02	4.28	4.54
1	1.57	2.35	2.61	2.87	3.13	3.39	3.65	3.91	4.17	4.43	4.69
$1\frac{1}{4}$	1.68	2.52	2.78	3.04	3.30	3.56	3.82	4.08	4.34	4.60	4.86
$1\frac{1}{2}$	1.78	2.67	2.93	3.19	3.45	3.71	3.97	4.23	4.49	4.75	5.01
2	1.89	2.82	3.08	3.34	3.60	3.86	4.12	4.38	4.64	4.90	5.16
$2\frac{1}{4}$	2.00	2.98	3.24	3.50	3.76	4.02	4.28	4.54	4.80	5.06	5.32
$2\frac{1}{2}$	2.10	3.13	3.39	3.65	3.91	4.17	4.43	4.69	4.95	5.21	5.47
3	2.20	3.27	3.53	3.79	4.05	4.31	4.57	4.83	5.09	5.35	5.61
$3\frac{1}{4}$	2.30	3.41	3.67	3.93	4.19	4.45	4.71	4.97	5.23	5.49	5.75
$3\frac{1}{2}$	2.40	3.56	3.82	4.08	4.34	4.60	4.86	5.12	5.38	5.64	5.90
4	2.50	3.71	3.97	4.23	4.49	4.75	5.01	5.27	5.53	5.79	6.05
$4\frac{1}{4}$	2.60	3.86	4.12	4.38	4.64	4.90	5.16	5.42	5.68	5.94	6.20
$4\frac{1}{2}$	2.70	4.01	4.27	4.53	4.79	5.05	5.31	5.57	5.83	6.09	6.35
5	2.80	4.16	4.42	4.68	4.94	5.20	5.46	5.72	5.98	6.24	6.50
$5\frac{1}{4}$	2.90	4.31	4.57	4.83	5.09	5.35	5.61	5.87	6.13	6.39	6.65
$5\frac{1}{2}$	3.00	4.46	4.72	4.98	5.24	5.50	5.76	6.02	6.28	6.54	6.80
6	3.10	4.61	4.87	5.13	5.39	5.65	5.91	6.17	6.43	6.69	6.95

II. ROUND IRON, one foot long.

Inches Diameter Pounds and Parts	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$	$1\frac{5}{8}$	2
	0.165	0.374	0.663	1.04	1.48	2.02	2.65	3.33	4.12	4.98	5.93			
Inches Diameter Pounds and Parts	$1\frac{1}{8}$	$1\frac{1}{4}$	2	$2\frac{1}{8}$	$2\frac{1}{4}$	$2\frac{3}{8}$	$2\frac{1}{2}$	$2\frac{3}{4}$	$2\frac{7}{8}$	3	3			
	8.10	9.27	10.60	11.95	13.35	14.9	16.48	18.25	19.95	21.875	23.73			
Inches Diameter Pounds and Parts	$3\frac{1}{8}$	$3\frac{1}{4}$	$3\frac{3}{8}$	$3\frac{1}{2}$	4	$4\frac{1}{8}$	$4\frac{1}{4}$	$4\frac{3}{8}$	5	$5\frac{1}{8}$	$5\frac{1}{4}$	$5\frac{3}{8}$	$5\frac{1}{2}$	80.
	25.75	27.85	32.50	37.10	42.30	47.80	53.50	59.60	66.00	73.	80.			

III. SQUARE BAR IRON, one foot long, in pounds and parts.

Inches Square Pounds and Parts	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$	7.56
	0.21	0.47	0.84	1.34	1.89	2.57	3.3	4.25	5.25	6.35	7.56			
Inches Square Pounds and Parts	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	2	$2\frac{1}{8}$	$2\frac{1}{4}$	$2\frac{3}{8}$	3	$3\frac{1}{4}$	$3\frac{1}{8}$	$3\frac{1}{4}$	$3\frac{3}{8}$	$3\frac{1}{2}$	47.30
	8.87	10.29	11.81	13.40	16.80	21.00	25.40	30.30	35.50	41.20	47.30			
Inches Square Pounds and Parts	4	$4\frac{1}{4}$	$4\frac{1}{2}$	5	$5\frac{1}{4}$	$5\frac{1}{2}$	$5\frac{3}{4}$	6	6	$6\frac{1}{4}$	$6\frac{1}{2}$	$6\frac{3}{4}$	$6\frac{1}{2}$	142.00
	53.90	60.70	68.40	84.00	92.40	101.50	111.00	121.00	131.50	142.00				

IV. SHEET IRON.

One foot square, in pounds and parts. The number on the wire guage is the thickness.
Observe No. 1, is 5-16ths of an inch. No. 4, $\frac{1}{4}$. No 11, $\frac{1}{8}$, &c.

No. on Wire Guage Pounds and Parts	1	2	3	4	5	6	7	8	9	10	11
	12,50	12,00	11,00	10,00	9,00	8,00	7,50	7,00	6,00	5,68	5,00
No. on Wire Guage Pounds and Parts	12	13	14	15	16	17	18	19	20	21	22
	4,62	4,31	4,00	3,95	3,00	2,50	2,18	1,93	1,62	1,50	1,37

V. PLATE OR BOILER IRON.

From $\frac{1}{8}$ to 1 inch thick; 1 foot square. Top line is the thickness, and the lower line gives the weight in pounds and parts.

1-8th	3-16th	1-4th	5-16th	3-8th	7-16th	$\frac{1}{2}$	9-16th	5-8th	11-16th	13-16th	7-8th	15-16th	1
5,00	7,50	10,00	12,50	15,00	17,50	20,00	22,50	25,00	27,50	30,00	32,50	35,00	37,50
													40

VI. A TABLE OF MULTIPLIERS,

For showing the difference in weight between Swedish iron plate and other metals.

Pure gold, beat	2,486	Brass Wire....	1,096
cast	2,472	cast....	1,080
Lead	1,457	Steel	1,003
Silver, beat ..	1,350	Iron, British ..	,980
cast ..	1,344	cast....	,925
Copper Wire..	1,136	Pewter.....	,960
beat..	1,132	Tin, cast.....	,937
cast..	1,128		

VII. TABLE TO FIND THE VALUE OF A POUND,

ON THE PRICE PER HUNDRED WEIGHT BEING GIVEN.

The price per lb. is in pence and farthings; the price per cwt, in shillings and pence.

Price per lb.	d. 1 s. d. 2	d. 1 1/4 s. d. 4	d. 1 1/2 s. d. 6	d. 1 3/4 s. d. 8	d. 2 s. d. 10	d. 2 1/4 s. d. 12	d. 2 1/2 s. d. 14	d. 2 3/4 s. d. 16	d. 3 s. d. 18	d. 3 1/4 s. d. 20	d. 3 1/2 s. d. 22	d. 3 3/4 s. d. 24	d. 4 s. d. 26	d. 4 1/4 s. d. 28	d. 4 1/2 s. d. 30
Price per cwt.	s. d. 2 4	s. d. 4 8	s. d. 6 4	s. d. 8 0	s. d. 10 4	s. d. 12 8	s. d. 15 0	s. d. 17 4	s. d. 19 8	s. d. 22 0	s. d. 24 4	s. d. 26 8	s. d. 29 0	s. d. 31 4	s. d. 33 8
Price per lb.	d. 3 1/4 s. d. 30	d. 3 1/2 s. d. 32	d. 3 3/4 s. d. 34	d. 4 s. d. 36	d. 4 1/4 s. d. 38	d. 4 1/2 s. d. 40	d. 4 3/4 s. d. 42	d. 5 s. d. 44	d. 5 1/4 s. d. 46	d. 5 1/2 s. d. 48	d. 5 3/4 s. d. 50	d. 6 s. d. 52	d. 6 1/4 s. d. 54	d. 6 1/2 s. d. 56	
Price per cwt.	s. d. 30 4	s. d. 32 8	s. d. 35 0	s. d. 37 4	s. d. 39 8	s. d. 42 0	s. d. 44 4	s. d. 46 8	s. d. 49 0	s. d. 51 4	s. d. 53 8	s. d. 56 0	s. d. 58 4	s. d. 60 8	
Price per lb.	d. 6 1/4 s. d. 58	d. 6 1/2 s. d. 60	d. 6 3/4 s. d. 62	d. 7 s. d. 64	d. 7 1/4 s. d. 66	d. 7 1/2 s. d. 68	d. 7 3/4 s. d. 70	d. 8 s. d. 72	d. 8 1/4 s. d. 74	d. 8 1/2 s. d. 76	d. 8 3/4 s. d. 78	d. 9 s. d. 80	d. 9 1/4 s. d. 82		
Price per cwt.	s. d. 58 4	s. d. 60 8	s. d. 63 0	s. d. 65 4	s. d. 67 8	s. d. 70 0	s. d. 72 4	s. d. 74 8	s. d. 77 0	s. d. 79 4	s. d. 81 8	s. d. 84 0	s. d. 86 4		
Price per lb.	d. 9 1/4 s. d. 86	d. 9 1/2 s. d. 88	d. 9 3/4 s. d. 90	d. 10 s. d. 92	d. 10 1/4 s. d. 94	d. 10 1/2 s. d. 96	d. 10 3/4 s. d. 98	d. 11 s. d. 100	d. 11 1/4 s. d. 102	d. 11 1/2 s. d. 104	d. 11 3/4 s. d. 106	d. 12 s. d. 108	d. 12 1/4 s. d. 110		
Price per cwt.	s. d. 86 4	s. d. 88 8	s. d. 91 0	s. d. 93 4	s. d. 95 8	s. d. 98 0	s. d. 100 4	s. d. 102 8	s. d. 105 0	s. d. 107 4	s. d. 109 8	s. d. 112 0	s. d. 114 4		