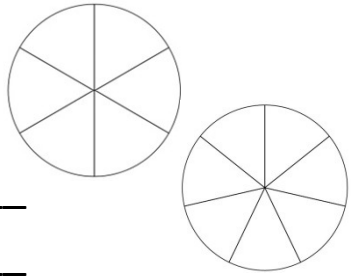
Using 6ths & 7ths. *Stg E6/6* *props & rats* Name: _____

OK, truth time. It's been long enough, you're not a baby anymore, someone has to tell you: The best way, without question, to learn how to find fractions of numbers is to learn and **remember** your **basic facts**. There you have it. So let's play with some fractions based on facts we already know.



E.g. 3 x 6 = 18. 18 ÷ 6 = 3. So then 1/6 of 18 = 3.

1. 3 x 6 = __ 18 ÷ 6 = __ So then 1/6 of 18 = ___
2. 4 x 7 = __ 28 ÷ 7 = __ So then 1/7 of 28 = ___
3. 8 x 6 = __ 48 ÷ 6 = __ So then 1/6 of 48 = ___
4. 9 x 7 = __ 63 ÷ 7 = __ So then 1/7of 63 = ___
5. 5 x 6 = __ 30 ÷ 6 = __ So then 1/6 of 30 = ___
6. 3 x 7 = __ 21 ÷ 7 = __ So then 1/7 of 21 = ___
7. 4 x 6 = __ 24 ÷ 6 = __ So then 1/6 of 24 = ___
8. 6 x 7 = __ 42 ÷ 7 = __ So then 1/7 of 42 = ___
9. 9 x 6 = __ 54 ÷ 6 = __ So then 1/6 of 54 = ___
10. 7 x 7 = __ 49 ÷ 7 = __ So then 1/7 of 49 = ___

Thinking: Is there a **simpler** way to show some sixths fractions? Look at **3/6** – what fraction does it show the same amount as? How about **2/6**?

You just know it ain't gonna stop there. – To find **more than 1** somethingth of something, all you need to do is multiply!

E.g. 18 ÷ 6 = 3. So then 1/6 of 18 = 3. So 2/6 of 18 = 6 (2 x 3) and 5/6 of 18 = 15 (5 x 3)

11. 36 ÷ 6 = __ So then 1/6 of 36 = ___ and 4/6 of 36 = ____
12. 56 ÷ 7 = __ So then 1/7 of 56 = ___ and 5/7 of 56 = ____
13. 54 ÷ 6 = __ So then 1/6 of 54 = ___ and 2/6 of 54 = ____
14. 28 ÷ 7 = __ So then 1/7 of 28 = ___ and 6/7 of 28 = ____
15. 42 ÷ 6 = __ So then 1/6 of 42 = ___ and 3/6 of 42 = ____
16. 49 ÷ 7 = __ So then 1/7 of 49 = ___ and 4/7 of 49 = ____
17. 72 ÷ 6 = __ So then 1/6 of 72 = ___ and 5/6 of 72 = ____
18. 84 ÷ 7 = __ So then 1/7 of 84 = ___ and 3/7 of 84 = ____
19. 66 ÷ 6 = __ So then 1/6 of 66 = ___ and 2/6 of 66 = ____
20. 35 ÷ 7 = __ So then 1/7 of 35 = ___ and 6/7 of 35= ____

This week I hired an odd-job man to do 8 jobs around the house for me. When I got back, he'd only done jobs 1,3,5, and 7… OK, so I'm a teacher not a comedian.

Dave Moran 2015

Using 6ths & 7ths. *Stg E7/7* *props & rats* Name: _____

How to find a sixth or seventh of any number. Finding any unit fraction is the same as dividing – we can use standard form fast long division. So, let's have a go at finding a sixth or seventh of these interesting numbers. Remember to keep your place value, look out for decimals!

a. $6\overline{)78.42}$ b. $7\overline{)10.50}$ c. $6\overline{)456.6}$ d. $7\overline{)3.003}$

e. $6\overline{)52284}$ f. $7\overline{)39662}$ g. $6\overline{)4825799}$

h. $7\overline{)31.64}$ i. $6\overline{)18.18}$ j. $7\overline{)65.31}$ k. $6\overline{)2.034}$

All well and good, I hear you say, *but what if I need 2 sixths of any number? Or 5 sevenths?* Well, there is a solution. To find **2 sixths** for example, all you have to do is **double** the answer to **1 sixth**! E.g:

$$6\overline{)23^{5}46} \rightarrow 391 \quad \begin{array}{r} {}^{1}391 \\ \times \quad 2 \\ \hline = 782 \end{array}$$

One sixth of 2346 is 391, 391 x 2 = 782 – to find 3 sixths simply **multiply by 3**, or 4 sixths - **multiply by 4**.

Now for the bit you've all been looking forward to… the nasty ones! – take your time!

I. Find **2/7** of 91.7 $7\overline{)91.7} \rightarrow \begin{array}{r} \times \quad 2 \\ \hline = \end{array}$

II. Find **5/6** of 70.92 $6\overline{)70.92} \rightarrow \begin{array}{r} \times \quad 5 \\ \hline = \end{array}$

III. Find **4/7** of 6.471 $7\overline{)6.471} \rightarrow \begin{array}{r} \times \quad 4 \\ \hline = \end{array}$

IV. Find **3/7** of 6993 $7\overline{)6993} \rightarrow \begin{array}{r} \times \quad 3 \\ \hline = \end{array}$

Write out these ones in your maths book:

1. Find 2/6 of 1680
2. Find 3/7 of 37.373
3. Find 4/6 of 7092
4. Find 2/7 of 5.684
5. Find 3/6 of 7404
6. Find 4/7 of 77.035
7. Find 2/6 of 1926
8. Find 3/7 of 47.67
9. Find 4/6 of 3702
10. Find 2/7 of 94.99

Stuck on the multiplication? Check out this video on You Tube:

https://youtu.be/3myNAdk6a4I

Useless factoid: To be "at **sixes and sevens**" is a British saying used to describe a state of confusion or disarray.

Dave Moran 2015