

22/6/20 - Maths

Skill: *Factors & Multiples to find equivalent fractions.*

Last week you looked at equivalent fractions. Today we are going to focus on finding factors and multiples of numbers, which helps us identify equivalent fractions.

Factor: A number (divisor) that goes into the dividend equally.

E.g. Factors of 10 are: 1, 10, 2, 5.

Multiple: A multiple is a number that is the product of a calculation (not including 0).

E.g. 4, 8, 12 are multiples of 4 (they appear in the $\times 4$ timestables)

Remember, whatever you do to the top, you must do to the bottom.

$$\frac{1}{5} \quad (\times 2) = \frac{2}{10}$$

1/5 is the same as 2/10 because I've multiplied both the numerator and denominator by 2.

1 is a factor of 2. (2 is a multiple of 1)

5 is a factor of 10. (10 is a multiple of 5)

\times	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Multiplication Grid

You can use this today to support your learning.

Copy and complete the second factor in each pair:

1) $16 = 2$ and ?

2) $35 = 7$ and ?

3) $44 = 11$ and ?

Find all the factors of the following numbers.

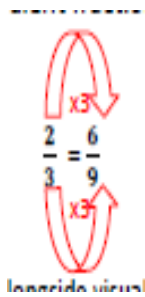
4) 8

5) 25

6) 32

7) 48

8) Reminder:



Whatever you do to the top, you must do to the bottom

	Correct/Incorrect?	How do you know? Prove it!
Tony says that $\frac{4}{7}$ is the same as $\frac{8}{14}$ and $\frac{15}{28}$ because 7, 14 and 28 are all multiples of 7.		
Liz says $\frac{8}{20}$ is equivalent to $\frac{4}{5}$ because 4 and 5 are both factors of 20.		

Challenge:

Complete the missing values to make the fractions equal:

$$\frac{\square}{11} = \frac{12}{44} \quad \frac{4}{5} = \frac{12}{\square} \quad \frac{6}{12} = \frac{24}{\square}$$
$$\frac{1}{5} = \frac{\square}{25} \quad \frac{3}{\square} = \frac{6}{24} \quad \frac{8}{\square} = \frac{16}{20}$$

Clue:
If you are working backwards, you need to do the inverse to multiply!