Y5- Multiplication and Division

short multiplication

		4	3	5	7
	x				6
	2	6	1	4	2
		2	3	4	

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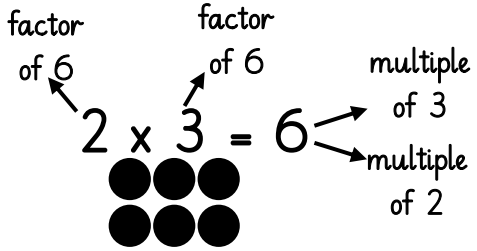


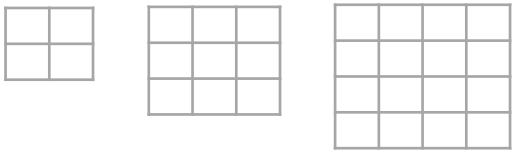
Common factors of 12 and 30 are 1, 2, 3 and 6.
The **highest common factor** (HCF) is 6

12	30
1 x 12	1 x 30
2 x 6	2 x 15
3 x 4	3 x 10
	5 x 6

square numbers

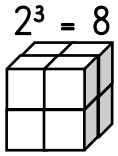
A square number is the product of multiplying a number by itself.

$2^2 = 4$ $3^2 = 9$ $4^2 = 16$

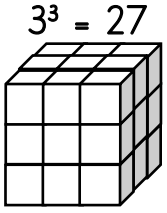


cube numbers

A cube number is the product of multiplying a number by itself, then by itself again.



1^3	1 x 1 x 1	1
2^3	2 x 2 x 2	8
3^3	3 x 3 x 3	27
4^3	4 x 4 x 4	64
5^3	5 x 5 x 5	125



multiplying by 10, 100 and 1000

TT h	Th	H	T	O	t	h
			1	2	4	5
		1	2	4	5	
	1	2	4	5		
1	2	4	5	0		

dividing by 10, 100 and 1000

TT h	Th	H	T	O	t	h
		4	2	0		
			4	2		
				4	2	
				0	4	2

A **multiple** is a number that can be divided by another without a remainder.

Multiples of 3: 3, 6, 9, 12, 15, 18, 21, 24, 27

Multiples of 4: 4, 8, 12, 16, 20, 24, 28, 32

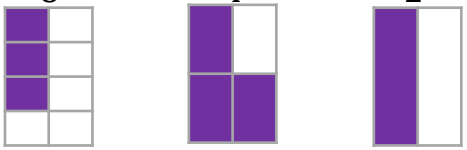
A **prime number** is a whole number greater than one that only has two factors - one and itself. It can't be divided by another positive integer without leaving a remainder. 2 is the only even prime number. Non-prime numbers are called **composite**.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

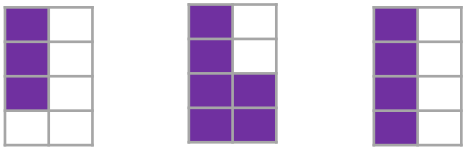
Y5 - Fractions

comparing and ordering fractions

$\frac{3}{8}$ $\frac{3}{4}$ $\frac{1}{2}$



$\frac{3}{8}$ $\frac{6}{8}$ $\frac{4}{8}$



$\frac{3}{8} < \frac{1}{2} < \frac{3}{4}$

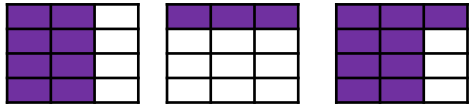
mixed numbers and improper fractions

mixed number $4\frac{2}{5}$

improper fraction $\frac{22}{5}$

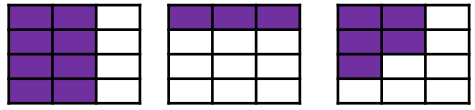
adding fractions with the same denominators

$\frac{8}{12} + \frac{3}{12} = \frac{11}{12}$



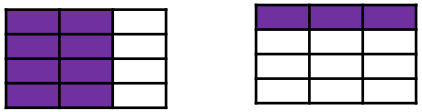
subtracting fractions with the same denominators

$\frac{8}{12} - \frac{3}{12} = \frac{5}{12}$



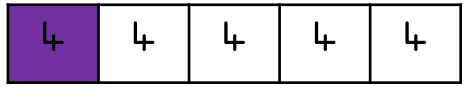
expressing fractions in the same denominator

$\frac{2}{3}$ $\frac{8}{12}$ $\frac{1}{4}$ $\frac{3}{12}$



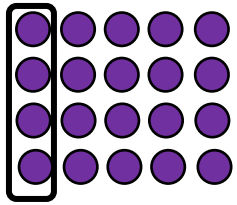
fractions of numbers

$\frac{1}{5}$ of 20

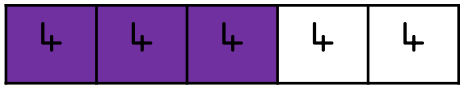


20 ÷ 5 = 4

$\frac{1}{5}$ of 20 = 4



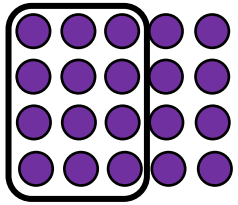
$\frac{3}{5}$ of 20



20 ÷ 5 = 4

4 x 3 = 12

$\frac{3}{5}$ of 20 = 12



tenths are found by dividing a number by 10

H	T	O	$\frac{1}{10}$
		2	
		0	2

2 divided by 10 is equal to $\frac{2}{10}$