

Four Operations (Part 2)

Crack the Code with Factors, Multiples, Square Numbers and Cube Numbers

Just in case you need a reminder...

A **factor** is a number that divides exactly into another number without leaving a remainder. It makes sense to list factors in pairs. For example, the factors of 6 are 1 and 6, 2 and 3

A **multiple** is the product of multiplying numbers together. For example as $3 \times 4 = 12$, then 12 is a multiple of 3; it is also a multiple of 4

A **prime number** is a whole number that has exactly two factors: 1 and itself

A **square number** is the result of multiplying a number by itself. For example, $5 \times 5 = 25$, so 25 is a square number

A **cube number** is the result of multiplying a number by itself and itself again. For example, $2 \times 2 \times 2 = 8$, so 8 is a cube number

Activity 1 - Each answer to the questions below will be a number. Match the number to a letter in the grid below. If your answers are correct, your letters will spell out a phrase.

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
14	15	16	17	18	19	20	21	22	23	24	25	26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z

Which number?	Notes/Number	Letter
This number is a multiple of seven and two and is a factor of 28.		
This number is a square number, a multiple of three and one more than a cube number.		
This number is a prime number and a factor of 36.		
When this number is squared, the answer is the largest square number in the list above.		
This prime number is > 19 and < 29 .		
This number is a multiple of five and three.		
This multiple of nine is in between two prime numbers.		
This number is the difference between 5^2 and 6^2 .		

Multiplication written methods

If you want a reminder on any of the methods needed on this page, you can always look at the [Kingslea Calculation Policy](#) on the website.

Activity 1: Use short multiplication to solve these calculations:

$$\begin{array}{r} 222 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 597 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 585 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 743 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 607 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 719 \\ \times 7 \\ \hline \end{array}$$

Activity 2: Use long multiplication to solve these calculations:

1.					
		2	1	9	0
x				6	9

2.					
		1	3	4	2
x				5	2

3.					
		1	5	2	1
x				7	3

4.					
		1	1	4	3
x				3	4

5.					
		2	4	6	8
x				2	7

6.					
		1	8	9	5
x				4	6