

Year 6 – Maths Subject Knowledge

Place Value

Counting

Read, write and represent numbers beyond 10 000 000

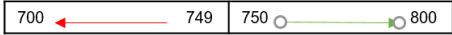
M	Hth	Tth	Th	H	T	O	1/10	1/100	1/1000
1,000,000	100,000	10,000	1,000	100	10	1	0.01	0.01	0.001

Rounding

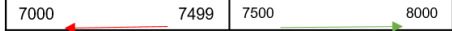
Nearest 10



Nearest 100



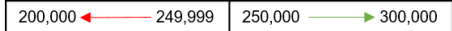
Nearest 1,000



Nearest 10,000



Nearest 100,000



Multiplication and Division

$$362 \times 24 = 8688$$

$$\begin{array}{r} \times 24 \\ 362 \\ \hline 1448 \\ 7240 \\ \hline 8688 \end{array}$$

$$615 \div 5 = 123$$

$$\begin{array}{r} 123 \\ 5 \overline{)615} \\ \underline{5} \\ 11 \\ \underline{10} \\ 15 \\ \underline{15} \\ 0 \end{array}$$

Term	Definition	Example
Factor	A number that divides exactly into another number	Factors of 12 = 1, 2, 3, 4, 6, 12
Multiple	A number in another number's time table	Multiples of 6 = 6, 12, 18, 24, 30
Prime number	A number with only 2 factors: 1 and itself	2, 3, 5, 7, 11, 13, 17, 19,
Square number	The result when a number has been multiplied by itself	25 ($5^2 = 5 \times 5$)
Cube number	The result when a number has been multiplied by itself twice	125 ($5^3 = 5 \times 5 \times 5$)

Addition and Subtraction

Addition

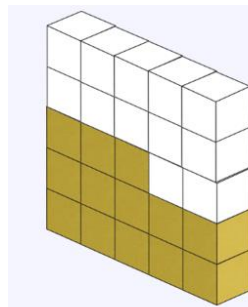
$$\begin{array}{r} 624764 \\ + 492543 \\ \hline 1117307 \end{array}$$

Subtraction

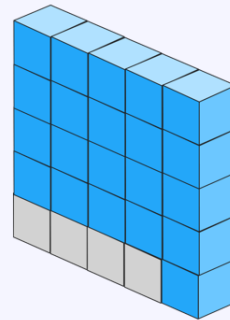
$$\begin{array}{r} 78438749 \\ - 3719458 \\ \hline 4719291 \end{array}$$

Fractions, decimals and percentages

Numerator – How many parts you have
 Denominator – How many parts in total
 Mixed number – An integer and a fraction
 Improper fraction – Numerator is greater than the denominator



$$\frac{13}{25} = 0.52 = 52\%$$



$$\frac{21}{25} = 0.84 = 84\%$$

Algebra

Use simple formulae and express missing number problems algebraically

Example

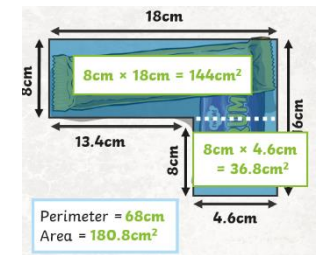
When $x = 10$ and $y = 1.5$
 $xy + 20$ has a value of 35.

Method

$$(10 \times 1.5) + 20 = 35$$

Measurement and Geometry

Area and Perimeter



Volume of cubes and cuboids

