

# Y6 Maths Knowledge Organiser

Common Conversions	
1 cm =	10mm
1m =	100cm = 1000mm
1km =	1000m
1kg =	1000g
1l =	1000ml

Angle Totals	
	Angles around a point total 360°

Roman Numerals	
I	1
V	5
X	10
L	50
C	100
D	500
M	1000

	Angles on a straight line total 180°
	Angles in a quadrilateral total 360°
	Angles in a triangle total 180°

Key Formulae	
Area of a rectangle	$b \times h$
Area of a triangle	$1/2 \times b \times h$
Area of a circle	$\pi \times r^2$

### Decimal Numbers as Fractions

0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
$\frac{1}{10}$	$\frac{2}{10}$	$\frac{3}{10}$	$\frac{4}{10}$	$\frac{5}{10}$	$\frac{6}{10}$	$\frac{7}{10}$	$\frac{8}{10}$	$\frac{9}{10}$	1
	$\frac{1}{5}$		$\frac{2}{5}$	$\frac{1}{2}$	$\frac{3}{5}$		$\frac{4}{5}$		

### Primes

A prime number has only 1 and itself as factors: 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43

A composite number has factors other than 1 and itself.

### Squares and Cubes

Square numbers result from a number being multiplied by itself (e.g.  $5 \times 5 = 25$ ):

1, 4, 9, 16, 25, 36, 49, 64, 81, 100

Cube numbers result from a number being multiplied by itself twice ( $2 \times 2 \times 2 = 8$ ):

1, 8, 27, 64, 125

$\frac{1}{4}$ turn 90°	$\frac{1}{2}$ turn 180°	$\frac{3}{4}$ turn 270°	1 turn 360°

Multiples of 90° can be used as descriptions of a turn.

### Round Any Number

Rounding to the nearest 1000

2000 ← 2499	2500 → 3000
round down	round up

Rounding to the nearest 10 000

20 000 ← 24 999	25 000 → 30 000
round down	round up

Rounding to the nearest 100 000

200 000 ← 249 999	250 000 → 300 000
round down	round up

Rounding to the nearest 1 000 000

2 000 000 ← 2 499 999	2 500 000 → 3 000 000
round down	round up

### Finding a Percentage of an Amount

50% =  $\frac{1}{2}$  so we can divide by 2

10% =  $\frac{1}{10}$  so we can divide by 10

25% =  $\frac{1}{4}$  so we can divide by 4

1% =  $\frac{1}{100}$  so we can divide by 100