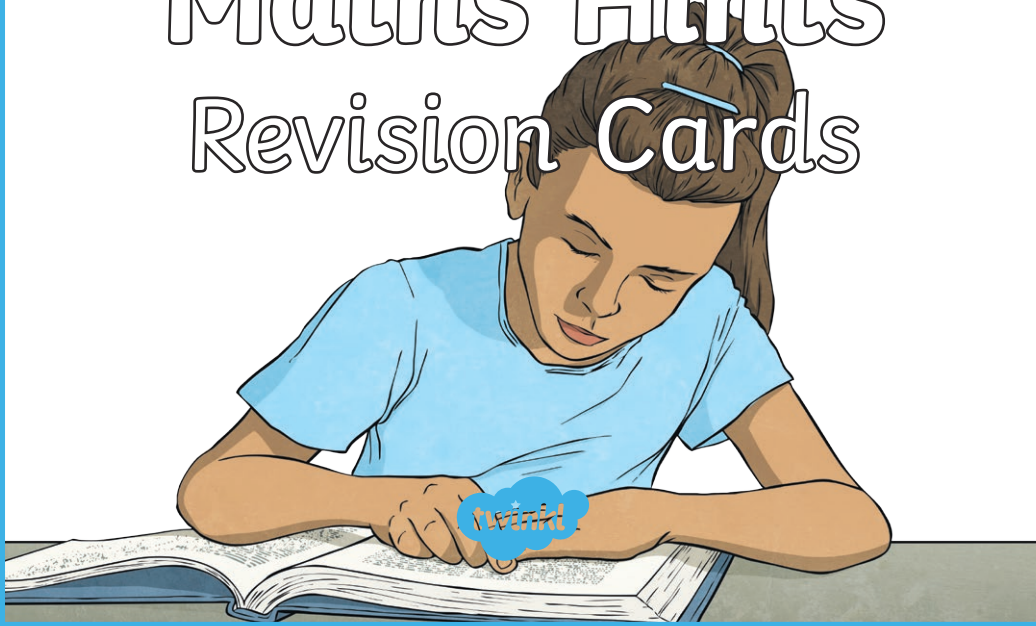


# Maths Hints Revision Cards

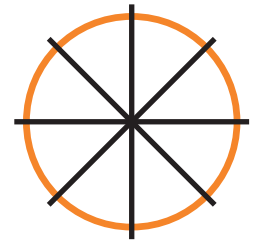
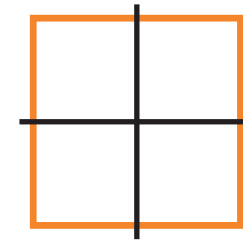
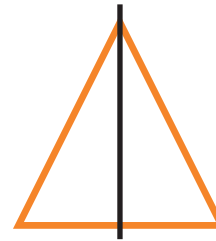


## Maths Hints

### Symmetry

When a line can be drawn on a shape, and both sides of the line are the same, this is the line of symmetry.

Some shapes have more than one line of symmetry.



## Maths Hints

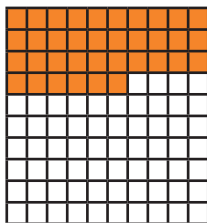
### Tenths and Hundredths

Tenths: something that has been split into ten equal parts.



$$\frac{1}{10}$$

$$\frac{4}{10} = 0.4$$



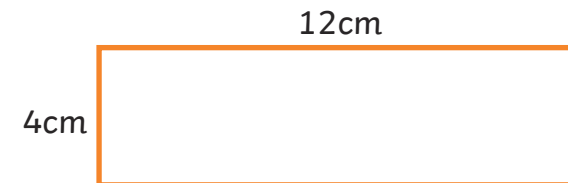
Hundredths: something that has been split into one hundred equal parts.

$$\frac{36}{100} = 0.36$$

## Maths Hints

### Perimeter

The perimeter of a shape is the total length of all the sides.



$$\text{Perimeter} = 4 + 4 + 12 + 12 = 32\text{cm}$$

## Rounding Decimal Numbers

1.3 is rounded down to the nearest whole number, 1.

1.7 is rounded up to the nearest whole number, 2.

If the tenth is between 0 and 4, round



If the tenth is between 5 and 9, round



## Column Calculations

$$\begin{array}{r} 125 \\ + 136 \\ \hline 261 \\ \hline \end{array}$$

1

Work right to left.

Add on any numbers you carry over.

## Fractions

A fraction is a part of a whole amount.

$\frac{1}{2}$



The top number is called the **numerator**. This tells us how many parts we have.



The bottom number is called the **denominator**. This tells us how many parts we have.



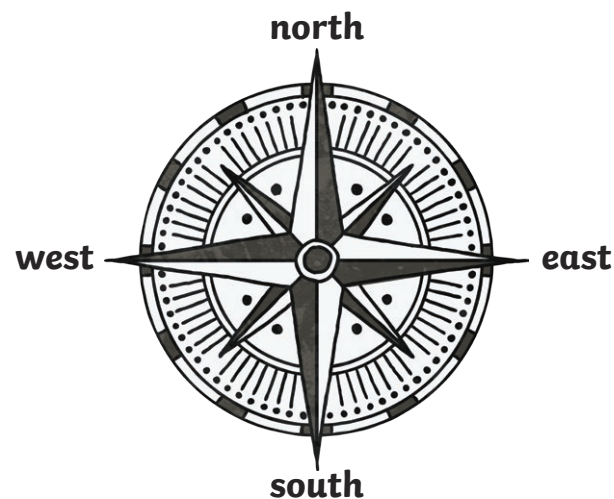
$\frac{1}{4}$  of the pizza has been eaten.  $\frac{3}{4}$  are left.

## Types of Angles

- A right angle =  $90^\circ$
- Two right angles = a straight line
- Obtuse angle = greater than  $90^\circ$
- Acute angle = less than  $90^\circ$



## Compass Directions



## Multiplication

Multiplication is the same as repeated addition.

$$2 \times 5 = 2 + 2 + 2 + 2 + 2$$

$$3 \times 4 = 4 + 4 + 4$$

## Inverse

When using the inverse to check an answer, you need to swap the numbers around and use the opposite sign.

$$8 + 2 = 10$$

The inverse of this number statement would be

$$10 - 8 = 2$$

or

$$10 - 2 = 8$$

## 2D Shapes



**triangle** 3 sides, 3 vertices



**square** 4 sides all the same length, 4 vertices



**circle** 1 side, no vertices



**rectangle** 4 sides, 4 vertices



**pentagon** 5 sides, 5 vertices



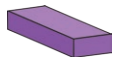
**octagon** 8 sides, 8 vertices

## Maths Hints

### 3D Shapes



**cube** 6 faces, 12 edges, 8 vertices, edges all the same length



**cuboid** 6 faces, 12 edges, 8 vertices, edges not all the same length



**sphere** no edges, no vertices, one curved surface



**triangular prism** 5 faces, 2 triangular faces, 3 rectangular faces



**square-based pyramid** a square base, 4 triangular faces, 5 faces



**cylinder** 2 flat faces, 2 curved edges, no vertices, one curved surface



**cone** 1 flat face, 1 curved surface, 1 curved edge

## Maths Hints

### Equivalent Fractions

Equivalent fractions look different but equal the same amount.



$\frac{1}{2}$  is equal to  $\frac{2}{4}$



$\frac{1}{3}$  is equal to  $\frac{2}{6}$



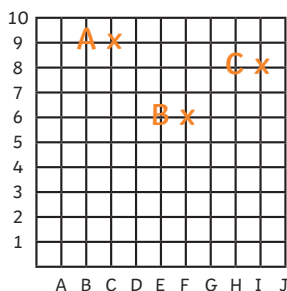
$\frac{1}{4}$  is equal to  $\frac{2}{8}$



$\frac{1}{5}$  is equal to  $\frac{2}{10}$

## Maths Hints

### Coordinates



Coordinates are written (x,y).

The first number moves horizontally, across.

The second number moves vertically, up.

A useful tip is “along the corridor and up the stairs”.

## Maths Hints

### Adding Fractions with the Same Denominator

Add the top numbers only and keep the same denominator.

$$\frac{2}{6} + \frac{3}{6} = \frac{5}{6}$$

The denominator remains the same.

## Subtracting Fractions with the Same Denominator

Subtract the top numbers only and keep the same denominator.

$$\frac{3}{6} - \frac{2}{6} = \frac{1}{6}$$

$$3 - 2 = 1$$

The denominator remains the same.

## Rounding Numbers to the Nearest 1000

4**2**93 is rounded down to the nearest thousand which is 4000.

4**7**45 is rounded up to the nearest thousand which is 5000.

If the **hundreds** number is between 0 and 4, round



If the **hundreds** number is between 5 and 9, round



## Multiples

When two numbers are multiplied together, the answer is a multiple.

Example: 12 is a multiple of 2, 3, 4, and 12

$$2 \times 6 = 12$$

$$3 \times 4 = 12$$

$$4 \times 3 = 12$$

$$1 \times 12 = 12$$

## × and ÷ by 10 or 100

×10 move all digits  
1 place to the



$$26 \times 10 = 260$$

×100 move all digits  
2 places to the



$$26 \times 100 = 2600$$

$$26 \div 10 = 2.6$$



÷10 move all digits  
1 place to the right

$$26 \div 100 = 0.26$$



÷100 move all digits  
2 places to the right

## Rounding to the Nearest 10

22 is rounded down to the nearest ten which is 20.

27 is rounded up to the nearest ten which is 30.

If the **ones** number is between 0 and 4, round



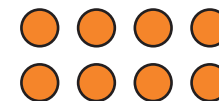
If the **ones** number is between 5 and 9, round



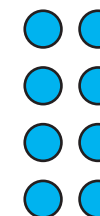
## Commutative Law

This is when you swap numbers around and still get the same answer when you add or multiply.

$$2 \times 4 = 8$$



$$4 \times 2 = 8$$



## Times Tables

$3 \times 0 = 0$	$4 \times 0 = 0$	$8 \times 0 = 0$
$3 \times 1 = 3$	$4 \times 1 = 4$	$8 \times 1 = 8$
$3 \times 2 = 6$	$4 \times 2 = 8$	$8 \times 2 = 16$
$3 \times 3 = 9$	$4 \times 3 = 12$	$8 \times 3 = 24$
$3 \times 4 = 12$	$4 \times 4 = 16$	$8 \times 4 = 32$
$3 \times 5 = 15$	$4 \times 5 = 20$	$8 \times 5 = 40$
$3 \times 6 = 18$	$4 \times 6 = 24$	$8 \times 6 = 48$
$3 \times 7 = 21$	$4 \times 7 = 28$	$8 \times 7 = 56$
$3 \times 8 = 24$	$4 \times 8 = 32$	$8 \times 8 = 64$
$3 \times 9 = 27$	$4 \times 9 = 36$	$8 \times 9 = 72$
$3 \times 10 = 30$	$4 \times 10 = 40$	$8 \times 10 = 80$
$3 \times 11 = 33$	$4 \times 11 = 44$	$8 \times 11 = 88$
$3 \times 12 = 36$	$4 \times 12 = 48$	$8 \times 12 = 96$

## Fractions and Decimals

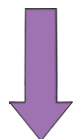
Fraction	Decimal
$\frac{1}{100}$	0.01
$\frac{1}{10}$	0.1
$\frac{1}{5}$	0.2
$\frac{1}{2}$	0.5
$\frac{1}{4}$	0.25
$\frac{3}{4}$	0.75

## Rounding to the Nearest 100

242 is rounded down to the nearest hundred which is 200.

276 is rounded up to the nearest hundred which is 300.

If the **tens** number is between 0 and 4, round



If the **tens** number is between 5 and 9, round



## Distributive Law

Multiplying a number by a group of numbers added together is the same as doing each multiplication separately.

$$2 \times (2 + 4)$$

is the same as saying

$$2 \times 2 + 2 \times 4$$

## Factor Pairs

Factor pairs are a pair of numbers which multiply together and make a particular number.

$$2 \times 3 = 6$$



and 3 are factor pairs