

Helpful tips for the Y6 written papers

Year 6 SATs

Written assessment recap

Keywords

- Sum, Add, Altogether, Total
- Subtract, Take away, Minus, Difference
- Multiply, Times, Product, Lots of
- Divide, Share, Goes into

Special numbers

- Prime: 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, ...
- Square, 1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144
- Multiples (Times tables)
E.g. multiples of 6 are 6, 12, 18, 60, 600, 180
- Factors
E.g. factors of 10 are 1, 2, 5 and 10 (pairs)

Fractions, decimals and percentages

- $\frac{1}{4} = 0.25 = 25\%$
- $\frac{1}{2} = 0.5 = 50\%$
- $\frac{3}{4} = 0.75 = 75\%$

- $\frac{1}{10} = 0.1 = 10\%$

- $\frac{2}{10} = 0.2 = 20\%$

- $\frac{1}{3} = 0.333\dots$

- $\frac{1}{5} = 0.2 = 20\%$

- $\frac{2}{5} = 0.4 = 40\%$

- $\frac{3}{5} = 0.6 = 60\%$

- $\frac{4}{5} = 0.8 = 80\%$

Top tips

- Number sequences

1. **3.3,** **3.2,** **3,** **2.9,**

2. **3,** **2.75,** **2.25,**

3. **-0.7,** **-0.8,** **-0.9,** **-1.1,**

Top tips

- Number sequences

1. **3.3,** **3.2,** **3.1,** **3,** **2.9,** **2.8**

2. **3.25,** **3,** **2.75,** **2.5,** **2.25,** **2**

3. **-0.7,** **-0.8,** **-0.9,** **-1,** **-1.1,** **-1.2**

Careful here (not -0.10)

Example

- What number is halfway between 30 and 80?

Add them together, then **half** them

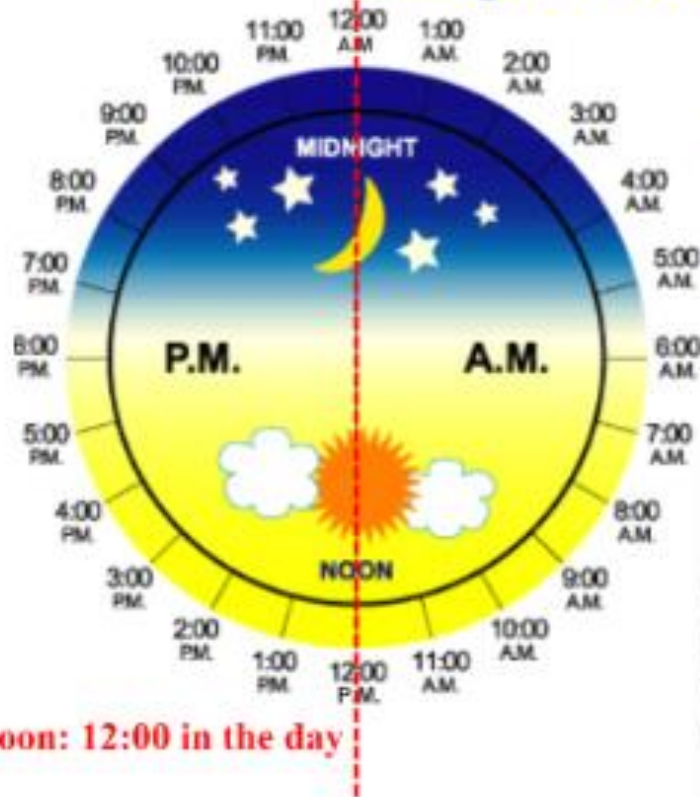
$$30 + 80 = 110$$

$$110 \div 2 = 55$$

Top tips

Objective: Write and identify times as A.M. or P.M.

midnight: 12:00 at night



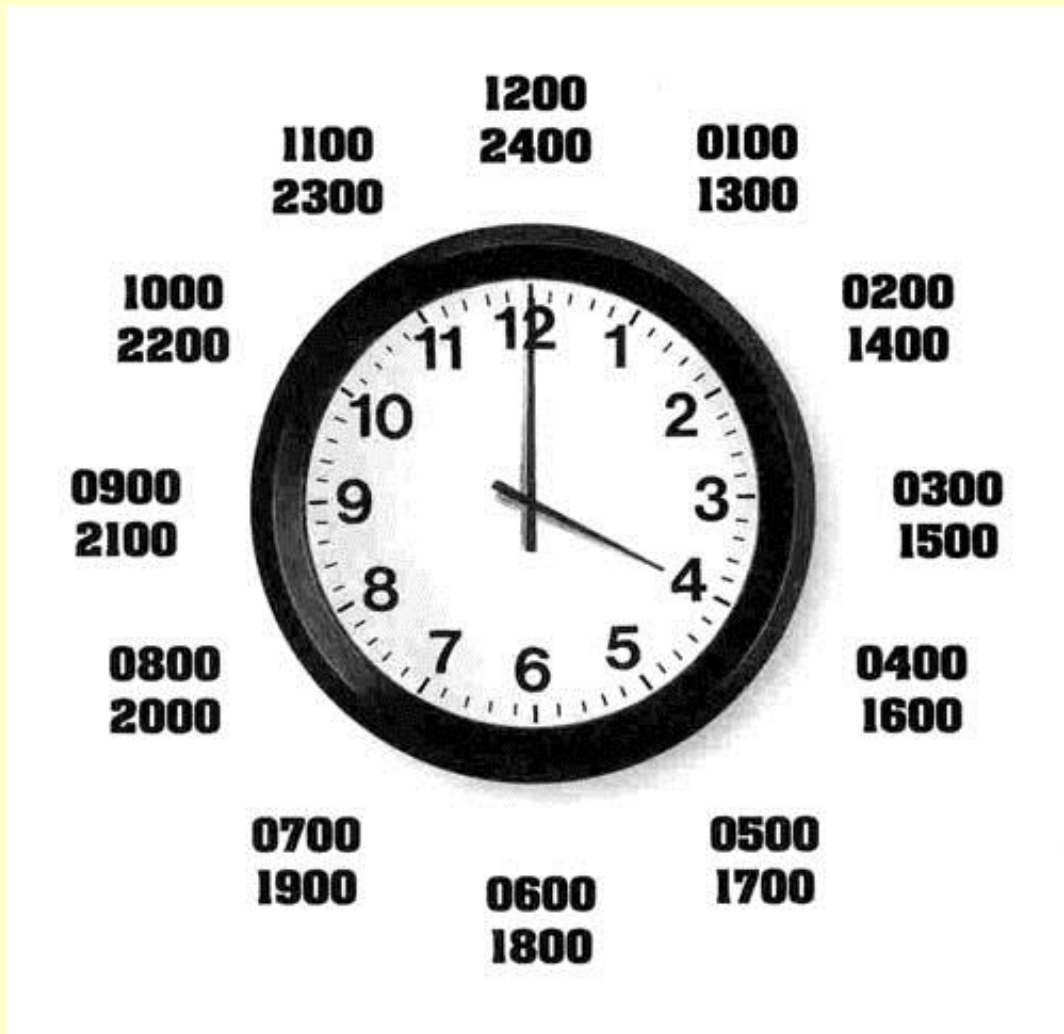
A.M. The times from midnight to noon

P.M. The times from noon to midnight

noon: 12:00 in the day

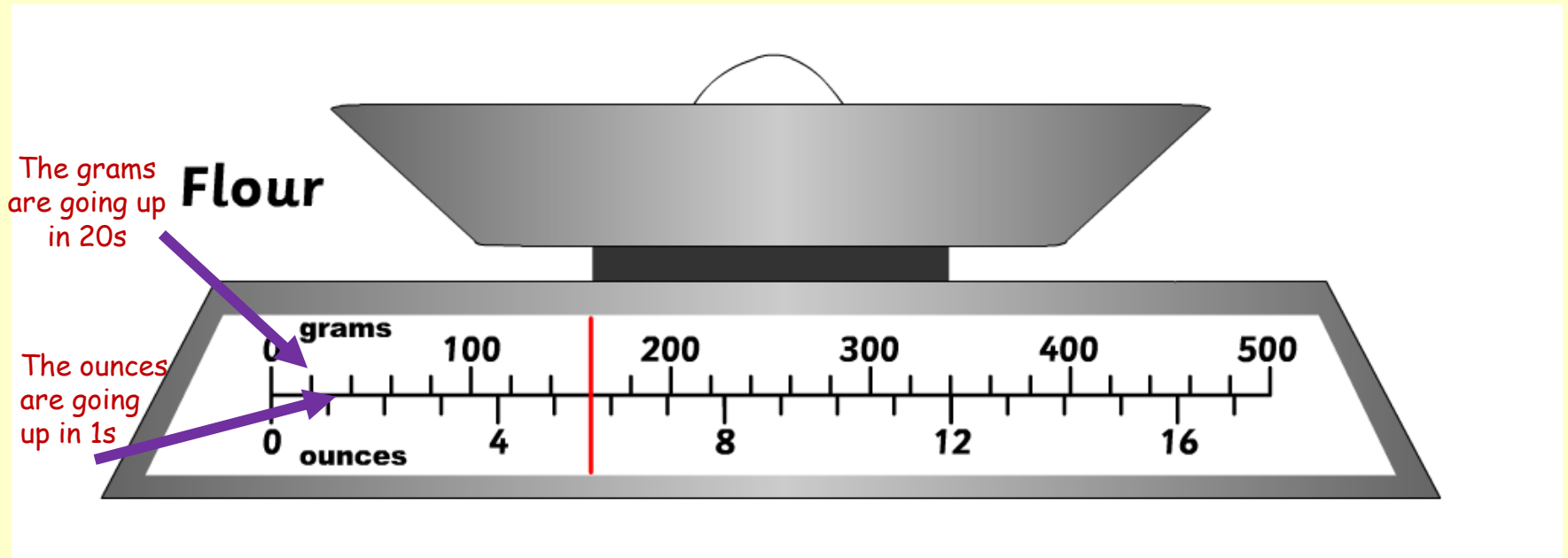


Top tips



Top tips

- Reading scales
- Work out the first divisions. Draw on the diagram to help.



Roman numerals

I = 1

I

V = 5

View

X = 10

X-rays

L = 50

Lucky

C = 100

Cows

D = 500

Drink

M = 1000

Milk

Roman numerals

I = 1

V = 5

UNITS

X = 10

L = 50

TENS

C = 100

D = 500

HUNDREDS

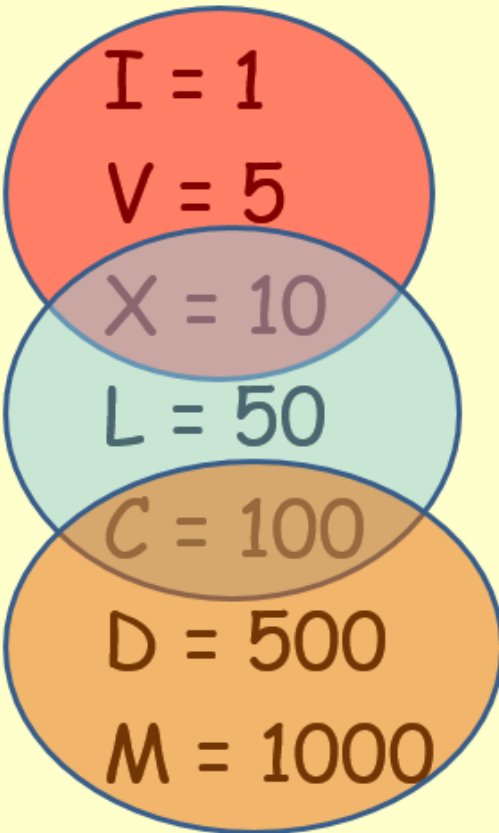
M = 1000

Only use the letters in the circles for subtracting e.g.

I only goes before V & X
X only goes before L & C
C only goes before D & M

Roman numerals

Careful with 4, 9, 40, 90, 400, 900



$$4 = IV$$

$$9 = IX$$

$$40 = XL$$

$$90 = XC$$

$$400 = CD$$

$$900 = CM$$

Roman numerals

Careful with 4, 9, 40, 90, 400, 900

Add up using place value:

$$399 = 300 + 90 + 9 =$$

Roman numerals

Careful with 4, 9, 40, 90, 400, 900

Add up using place value:

$$399 = 300 + 90 + 9 = \text{CCC} + \text{XC} + \text{IX}$$
$$=$$

Roman numerals

Careful with 4, 9, 40, 90, 400, 900

Add up using place value:

$$\begin{aligned} 399 &= 300 + 90 + 9 = \text{CCC} + \text{XC} + \text{IX} \\ &= \text{CCCXCIX} \end{aligned}$$

Roman numerals

Careful with 4, 9, 40, 90, 400, 900

Add up using place value:

$$\begin{aligned} 399 &= 300 + 90 + 9 = \text{CCC} + \text{XC} + \text{IX} \\ &= \text{CCCXCIX} \end{aligned}$$

$$2068 = 2000 + 60 + 8 =$$

Roman numerals

Careful with 4, 9, 40, 90, 400, 900

Add up using place value:

$$\begin{aligned} 399 &= 300 + 90 + 9 = \text{CCC} + \text{XC} + \text{IX} \\ &= \text{CCCXCIX} \end{aligned}$$

$$2068 = 2000 + 60 + 8 = \text{MM} + \text{LX} + \text{VIII}$$

Roman numerals

Careful with 4, 9, 40, 90, 400, 900

Add up using place value:

$$\begin{aligned} 399 &= 300 + 90 + 9 = \text{CCC} + \text{XC} + \text{IX} \\ &= \text{CCCXCIX} \end{aligned}$$

$$\begin{aligned} 2068 &= 2000 + 60 + 8 = \text{MM} + \text{LX} + \text{VIII} \\ &= \text{MMLXVIII} \end{aligned}$$

Algebra

- $3a$ means $3 \times a$ or $a + a + a$
- ab means $a \times b$

Mean

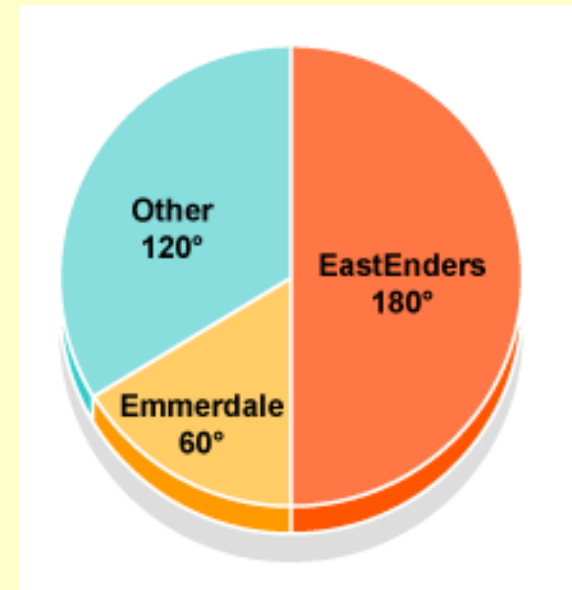
- **Mean** = Add them up
Number of items

- Mean of 2, 4, 6 and 8 is

$$\frac{2 + 4 + 6 + 8}{4} = \frac{20}{4} = 5$$

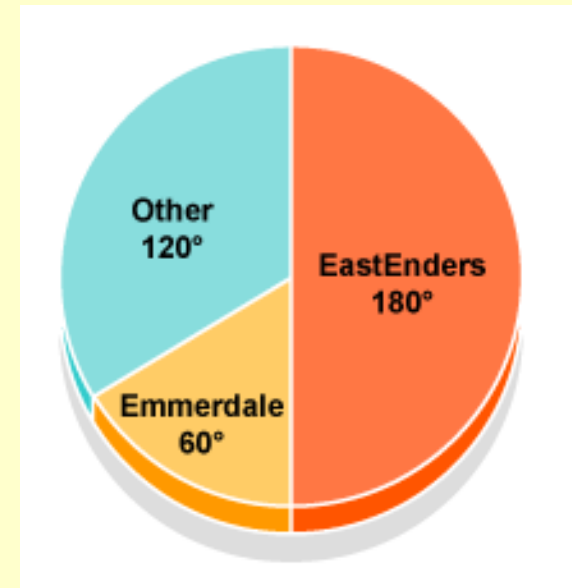
Pie charts

- Look for any totals (e.g. 200 people were surveyed).
- A right angle (90°) is one quarter.
- 180° is half so 100 people like Eastenders.
- 120° is one third ($1/3$) so about 66 people liked something else. ($200 \div 3$)



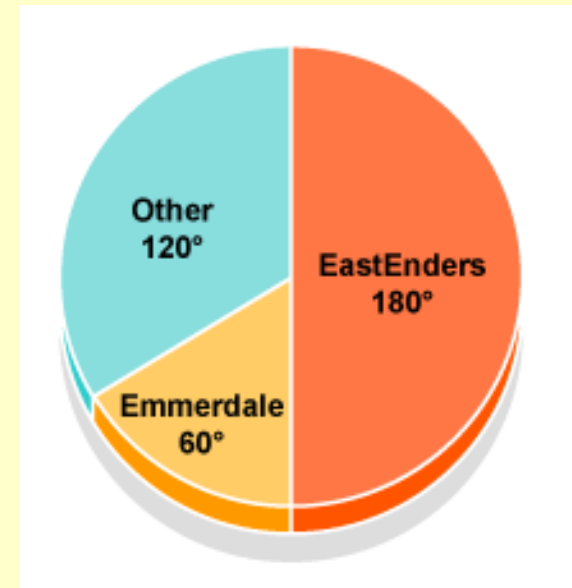
Pie charts

$$3 \overline{) 200}$$



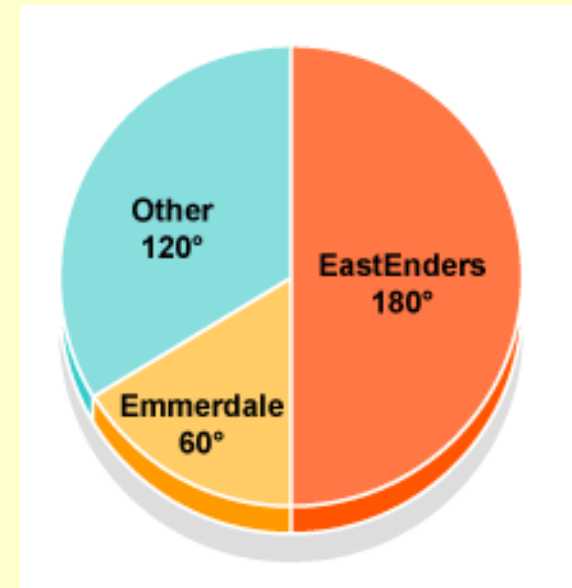
Pie charts

$$\begin{array}{r} 0 \\ 3 \overline{) 2200} \end{array}$$



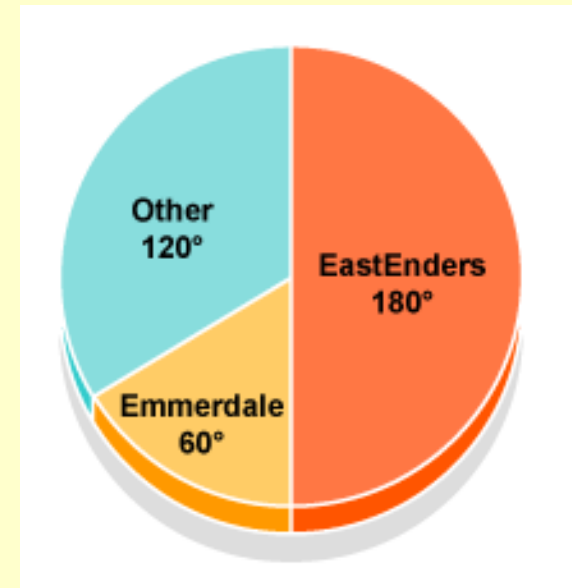
Pie charts

$$\begin{array}{r} 06 \\ 3 \overline{) 22020} \\ \underline{30} \\ 20 \\ \underline{20} \\ 0 \end{array}$$



Pie charts

$$\begin{array}{r} 066r2 \\ 3 \overline{) 22020} \end{array}$$



Measures

$$1 \text{ kg} = 1000 \text{ g}$$

$$1 \text{ g} = 1000 \text{ mg}$$

$$1 \text{ km} = 1000 \text{ m}$$

$$1 \text{ m} = 100 \text{ cm}$$

$$1 \text{ cm} = 10 \text{ mm}$$

$$1 \text{ litre} = 1000 \text{ ml}$$

5 miles is approx. 8 km

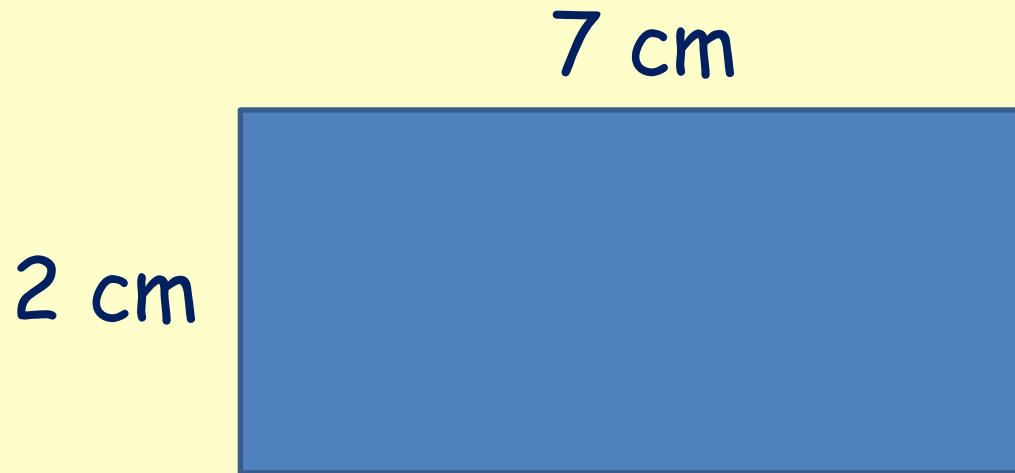
Area and perimeter - square



$$\text{Perimeter} = 7 + 7 + 7 + 7 = 28 \text{ mm}$$

$$\text{Area} = 7 \times 7 = 49 \text{ mm}^2$$

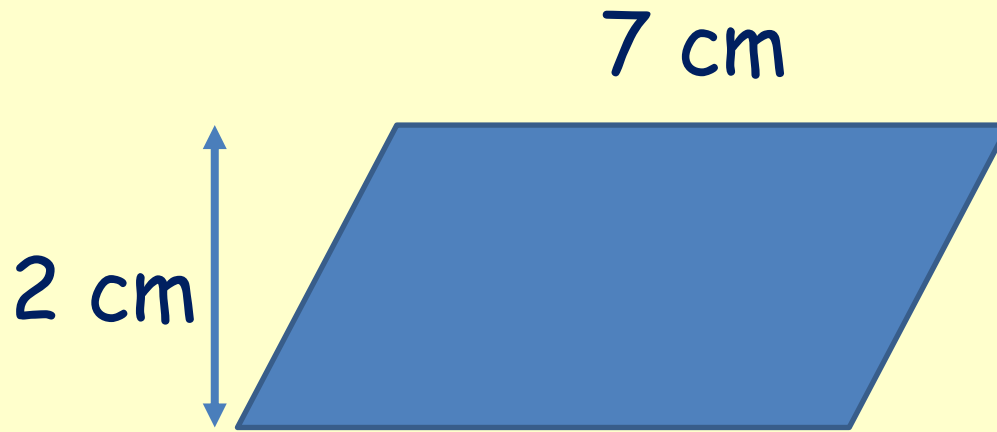
Area and perimeter - rectangle



$$\text{Perimeter} = 7 + 2 + 7 + 2 = 18 \text{ cm}$$

$$\text{Area} = 7 \times 2 = 14 \text{ cm}^2$$

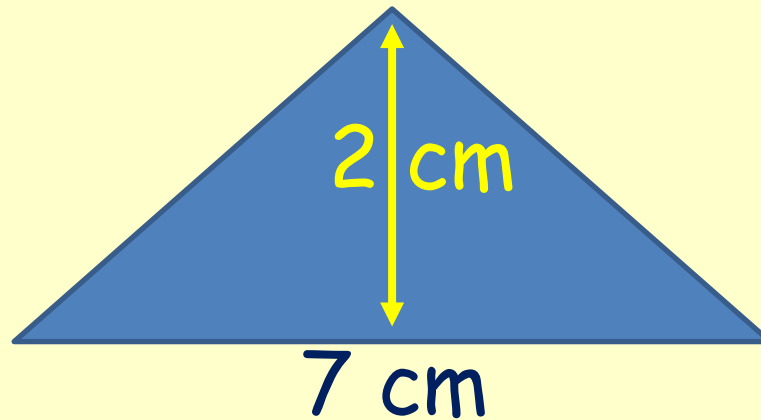
Area and perimeter - parallelogram



$$\text{Area} = 7 \times 2 = 14 \text{ cm}^2$$

(Use the perpendicular height)

Area and perimeter - triangle



$$\text{Area} = \frac{1}{2} \times 7 \times 2 = 14 \div 2 = 7 \text{ cm}^2$$

(Use the perpendicular height)

Angle names and facts

- **Acute** - less than 90°
- **Obtuse** - greater than 90° but less than 180°
- **Reflex** - greater than 180°

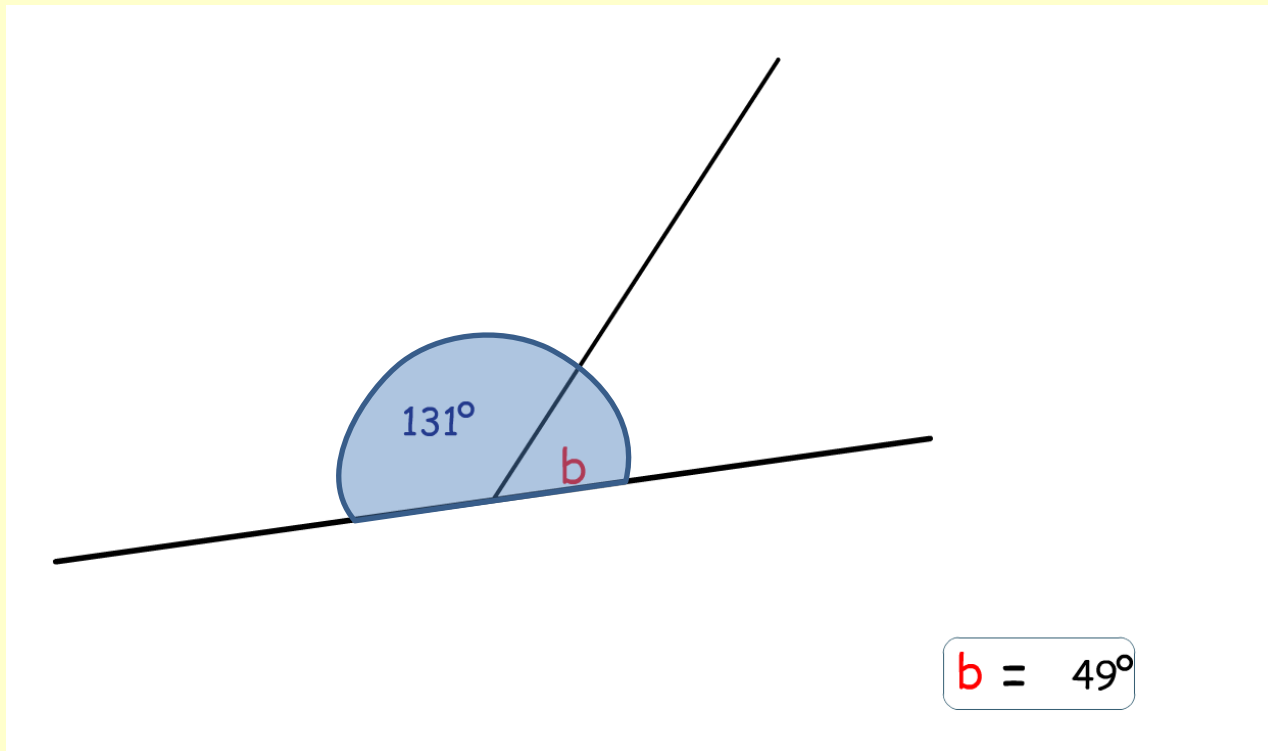
- **Right angle** - 90°
- **Straight line** - 180°

Angle names and facts

- Half turn - 180°
- Full turn - 360°

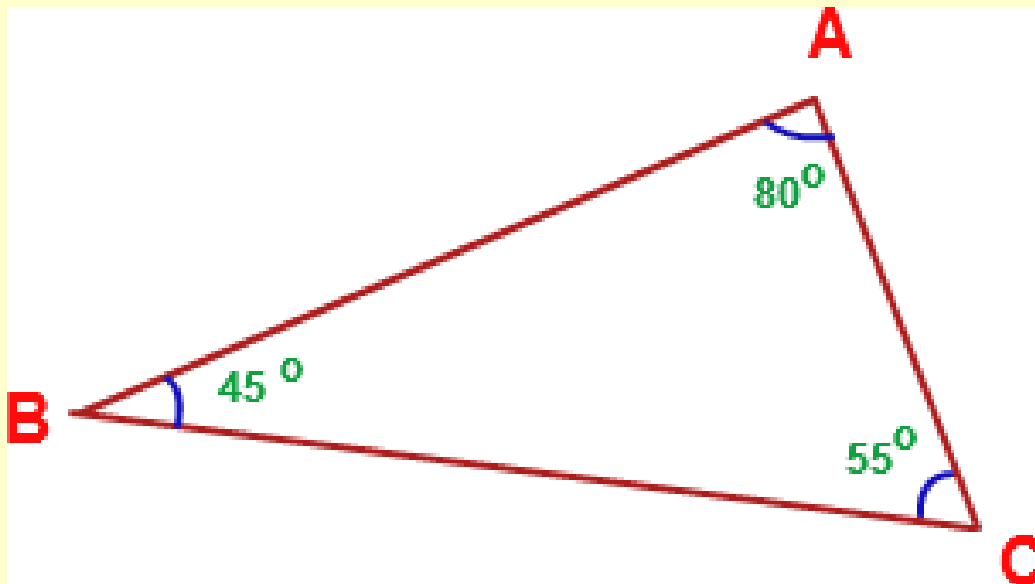
Angle names and facts

- Angles on a straight line add up to 180°



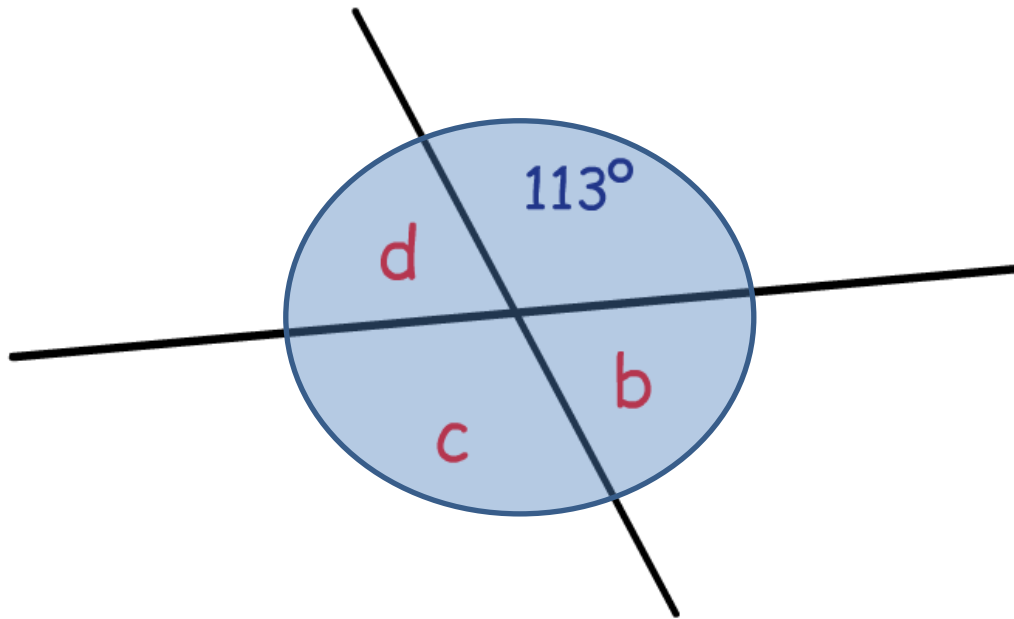
Angle names and facts

- Angles in a triangle add up to 180°



Angle names and facts

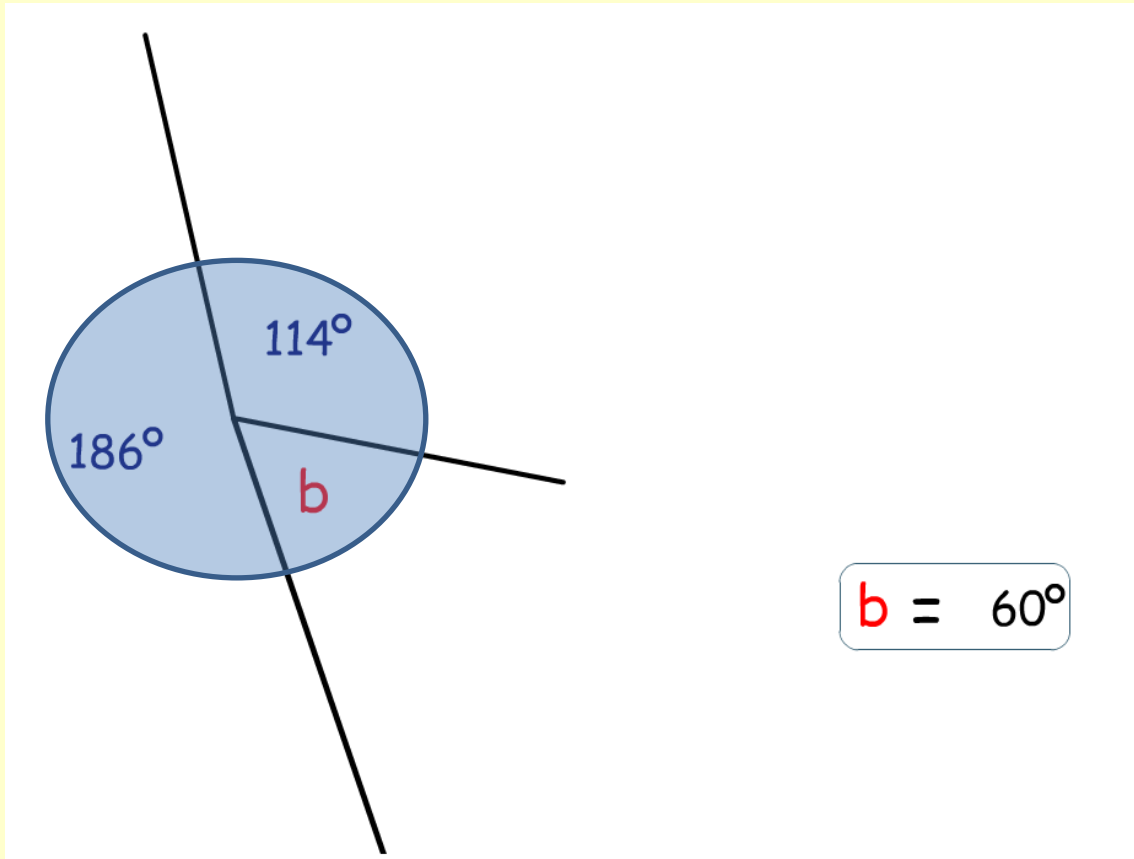
- **Opposite angles** are equal



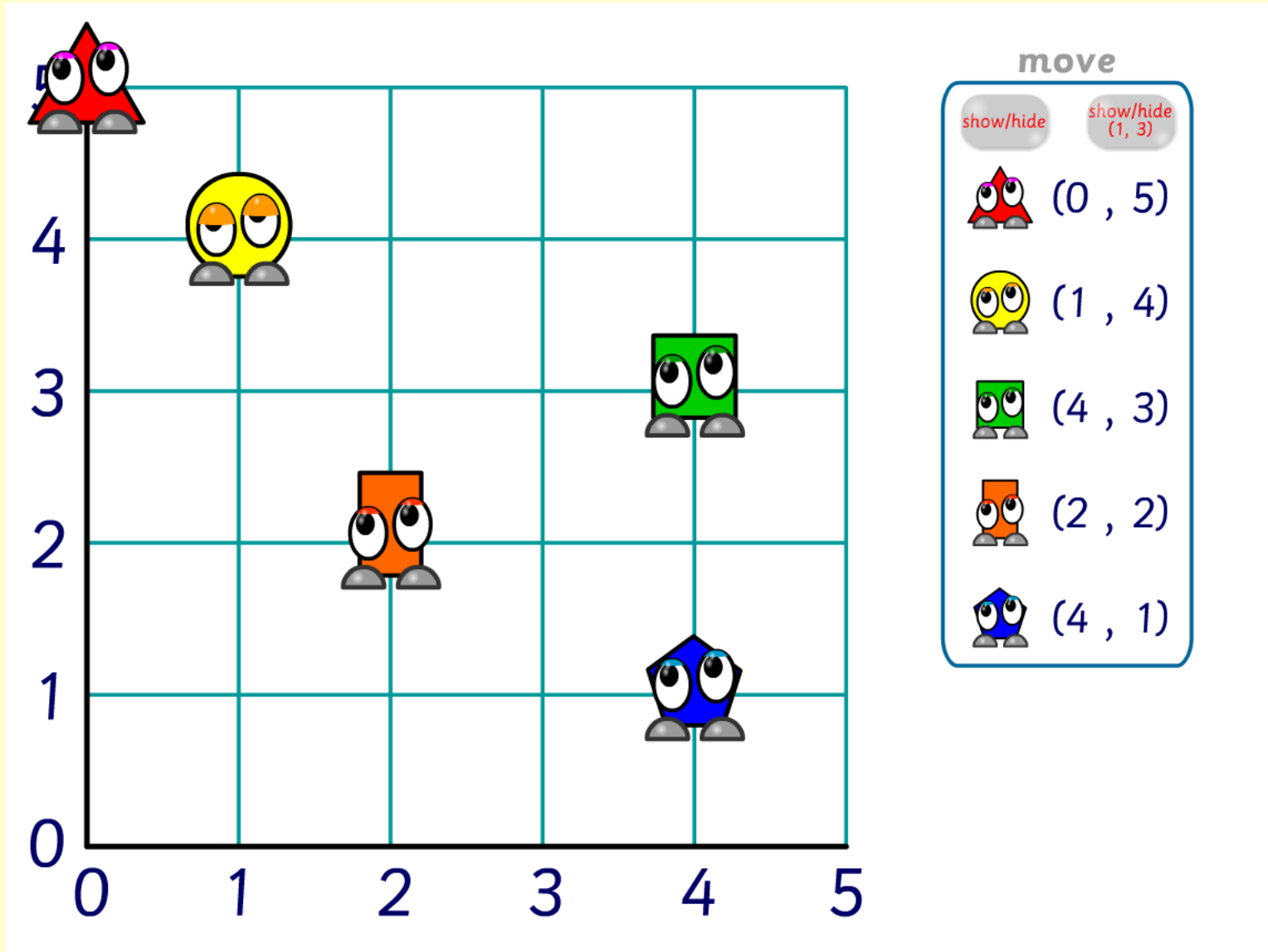
$$\begin{aligned} b &= 67^\circ \\ c &= 113^\circ \\ d &= 67^\circ \end{aligned}$$

Angle names and facts

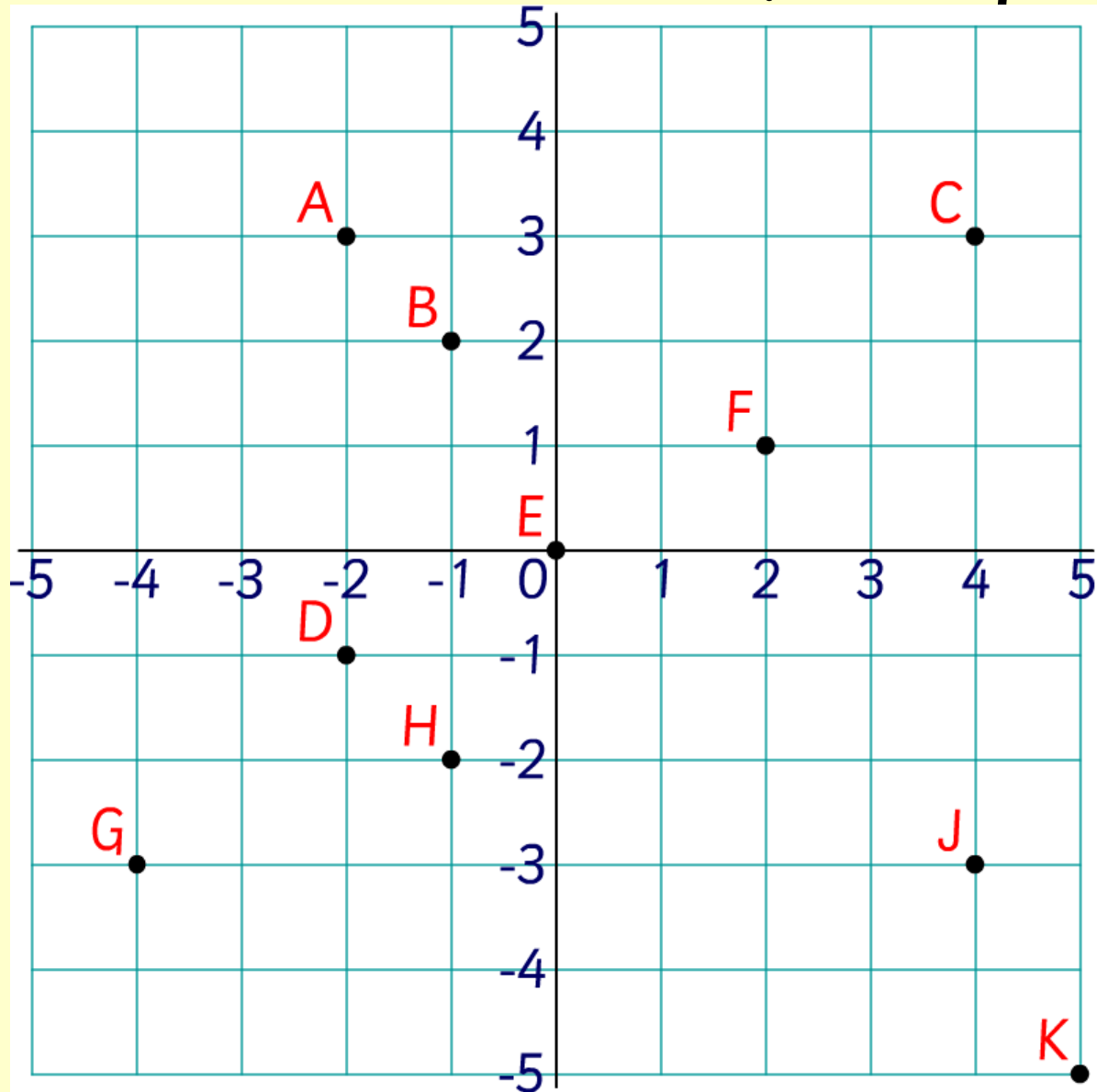
- Angles about a point add up to 360°



Coordinates - remember the order



Coordinates - four quadrants



move

show/hide
A

show/hide
(1, 3)

A (-2, 3)

B (-1, 2)

C (4, 3)

D (-2, -1)

E (0, 0)

F (2, 1)

G (-4, -3)

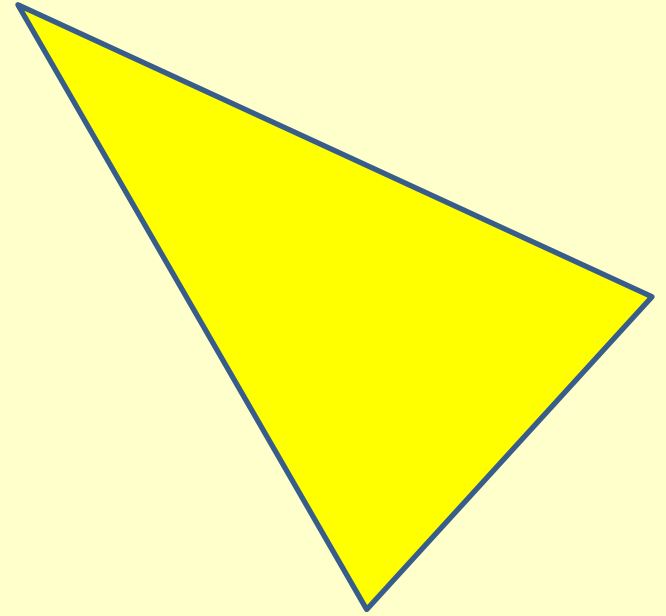
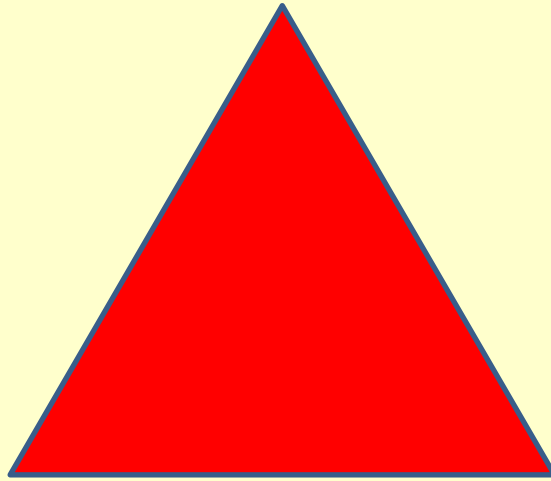
H (-1, -2)

J (4, -3)

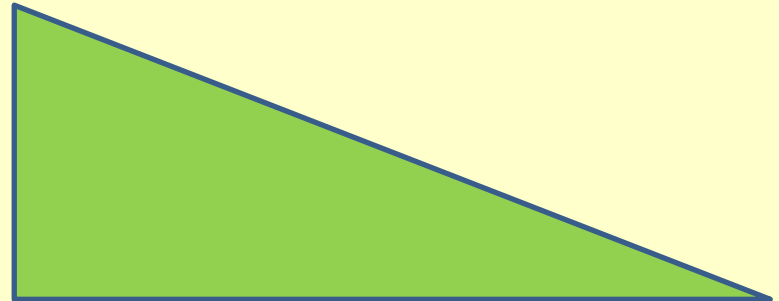
K (5, -5)

Names and properties of triangles

- Equilateral
- Isosceles
- Scalene

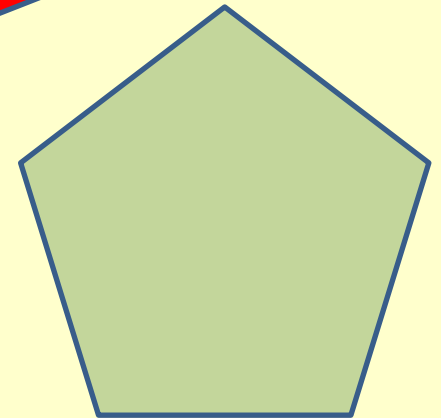
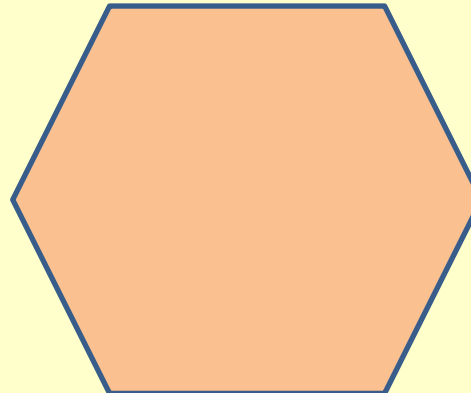
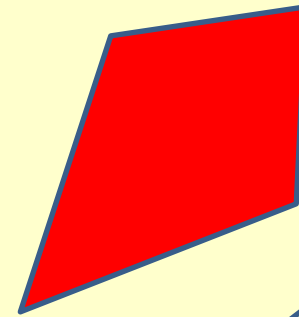
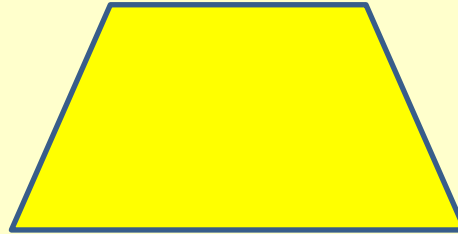
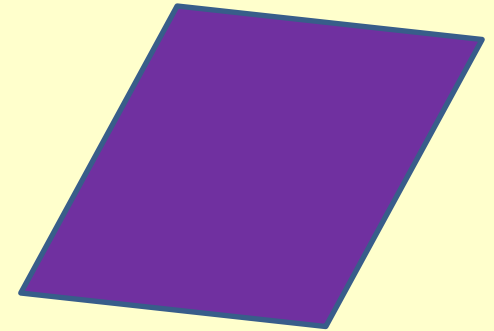
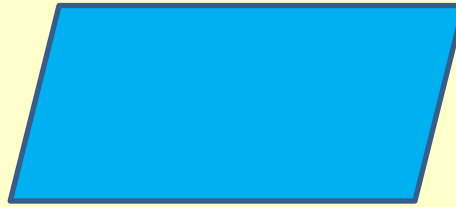


- One of these also has a right-angle. Which one?

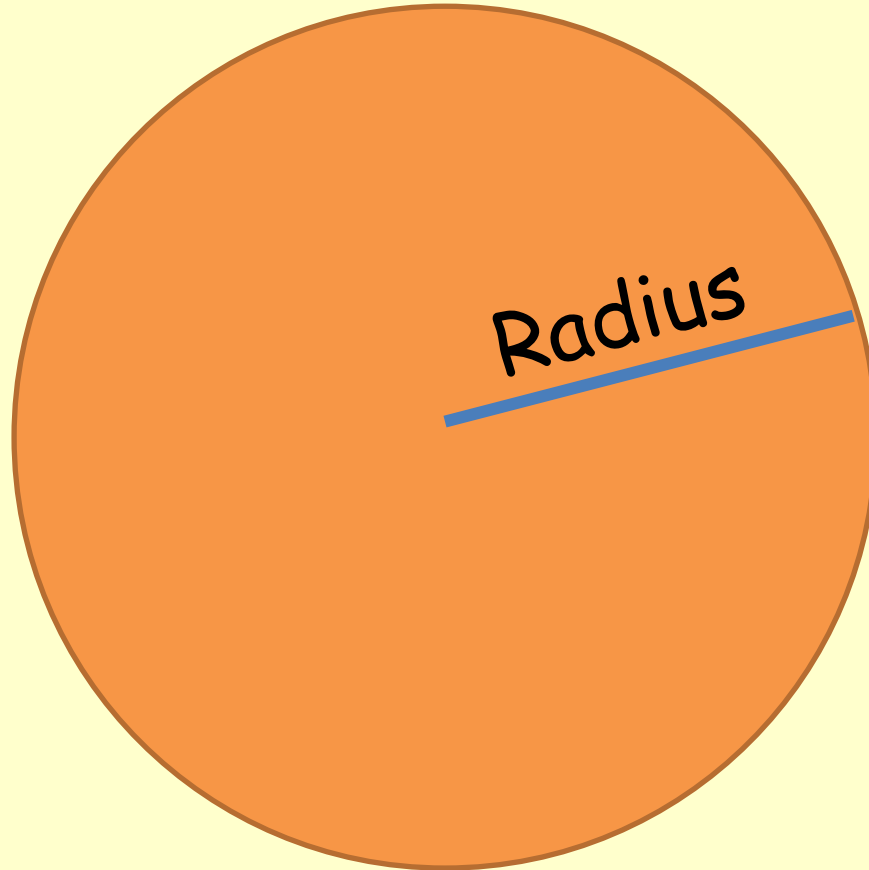


Names and properties of 2D shapes

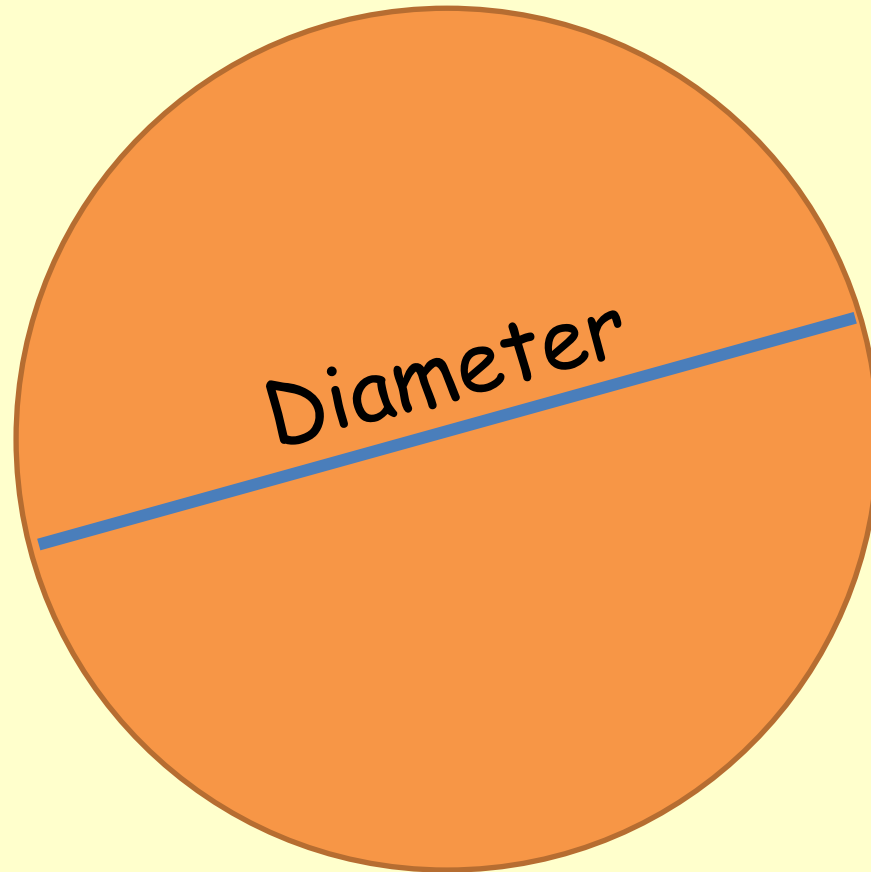
- Rectangle (4)
- Square (4)
- Trapezium (4)
- Parallelogram (4)
- Rhombus (4)
- Kite (4)
- Pentagon (5)
- Hexagon (6)
- Heptagon (7)
- Octagon (8)
- Nonagon (9)
- Decagon (10)



Circle

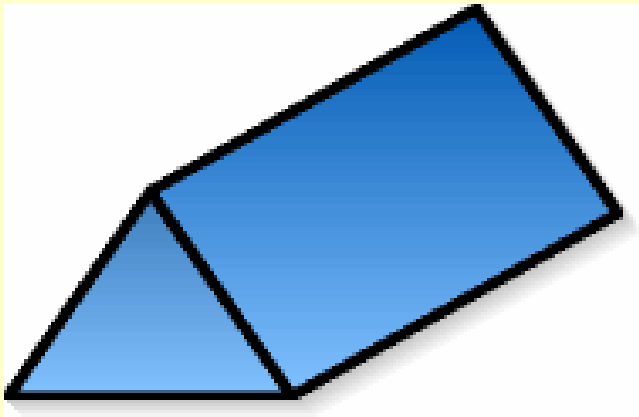
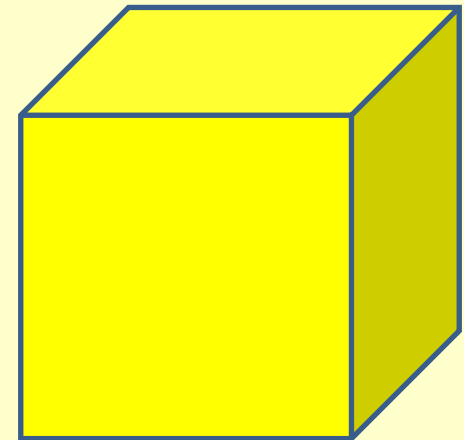
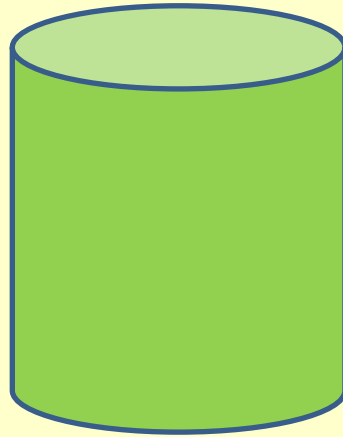


Circle



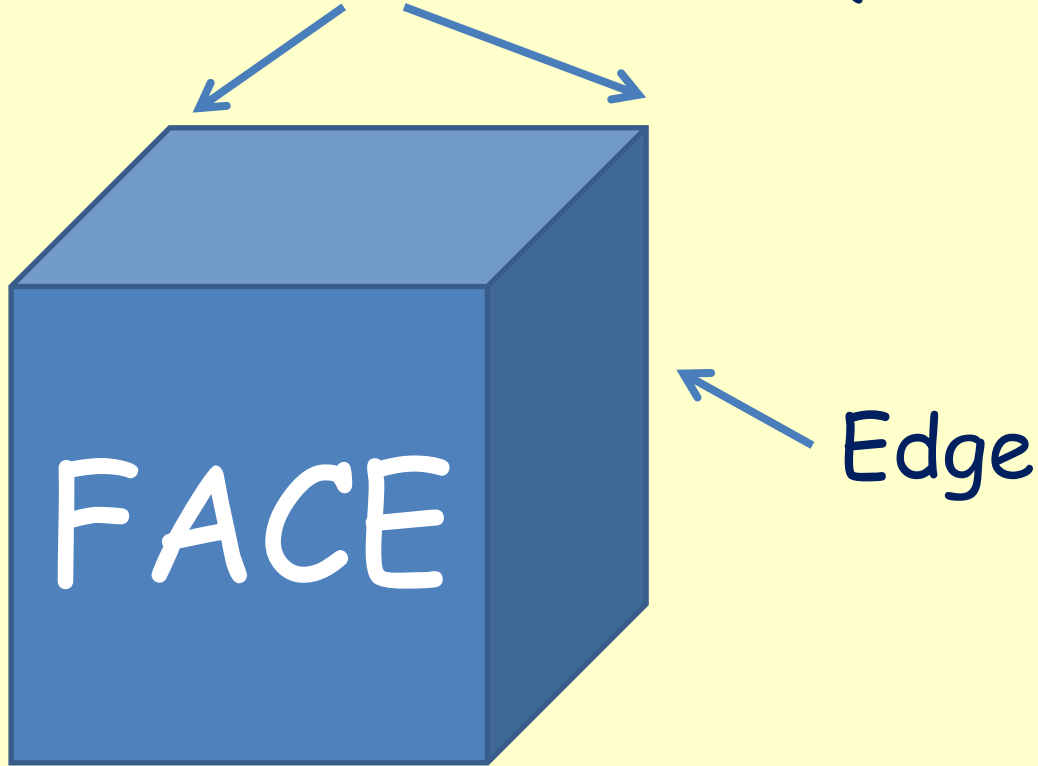
Prisms

- Cylinder
- Cube
- Cuboid
- Triangular prism

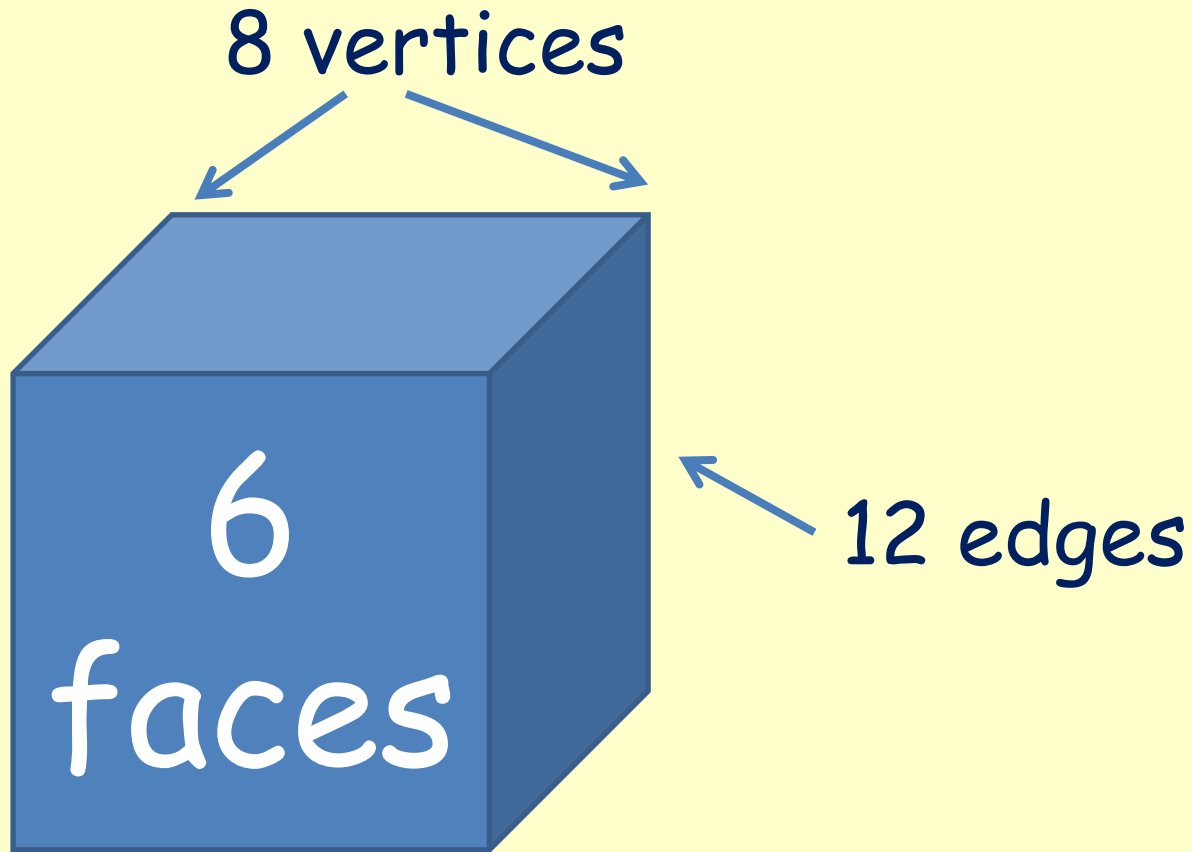


Properties of a cube/cuboid

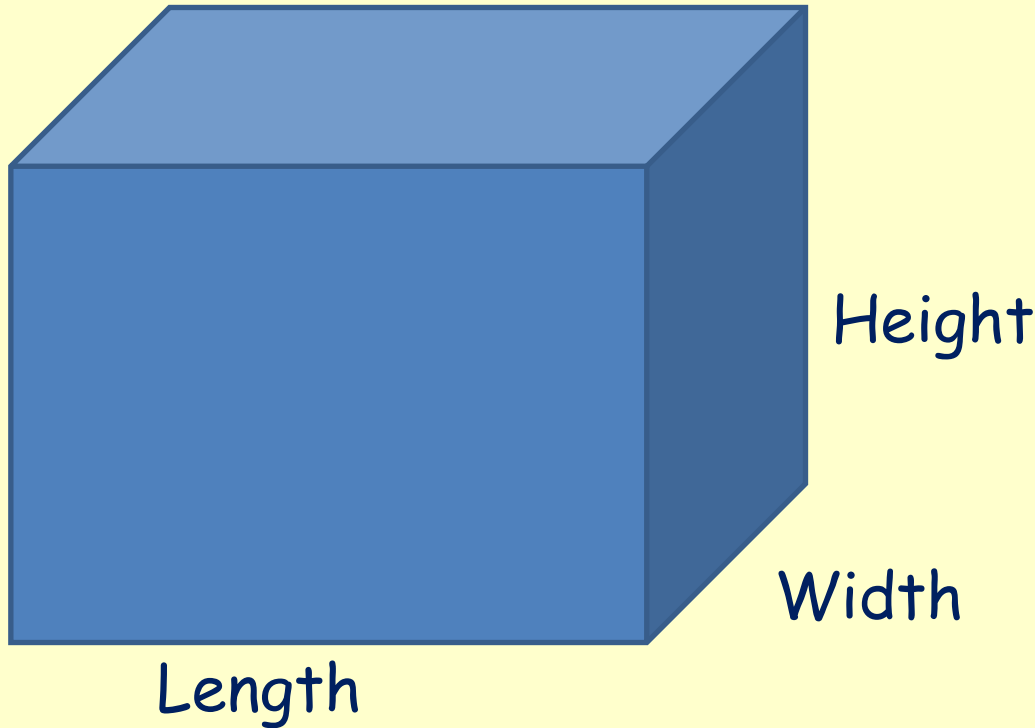
Vertex = corner (vertices)



Properties of a cube/cuboid



Volume of a cube or cuboid

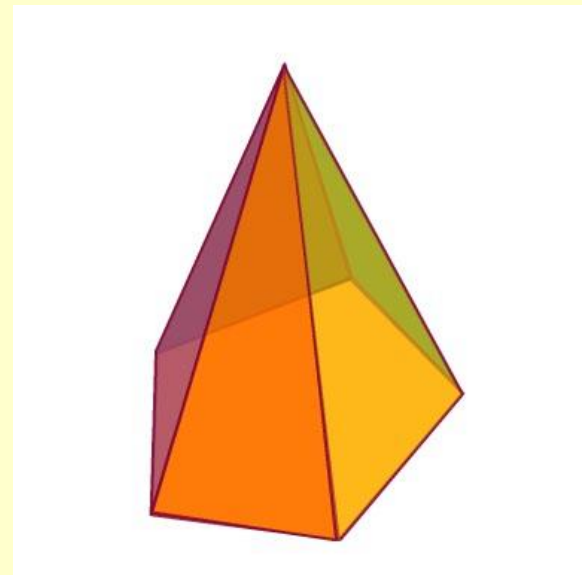
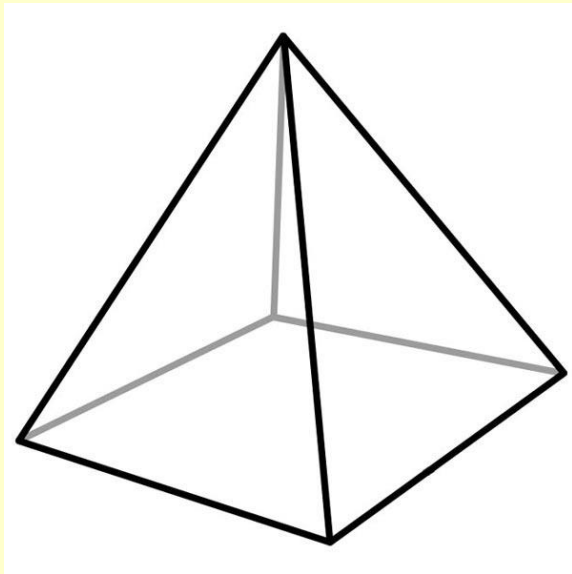
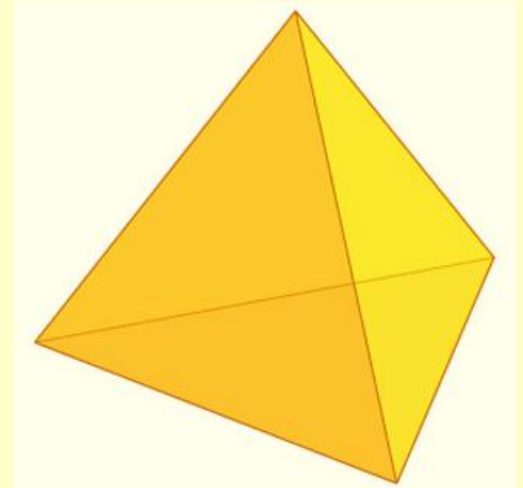


$$\text{Volume} = \text{Length} \times \text{Width} \times \text{Height}$$

(cm³ or mm³ etc)

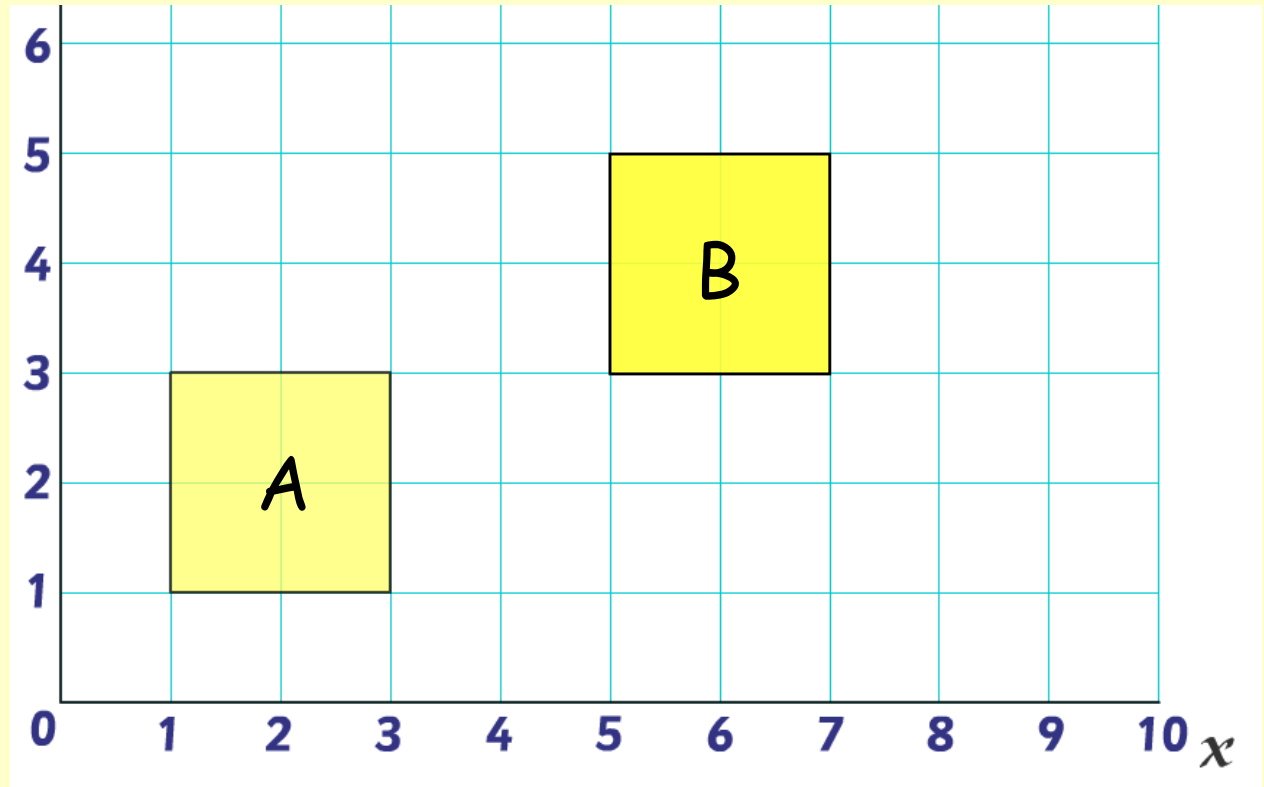
Pyramids

- Tetrahedron
- Square based pyramid
- Pentagonal based pyramid



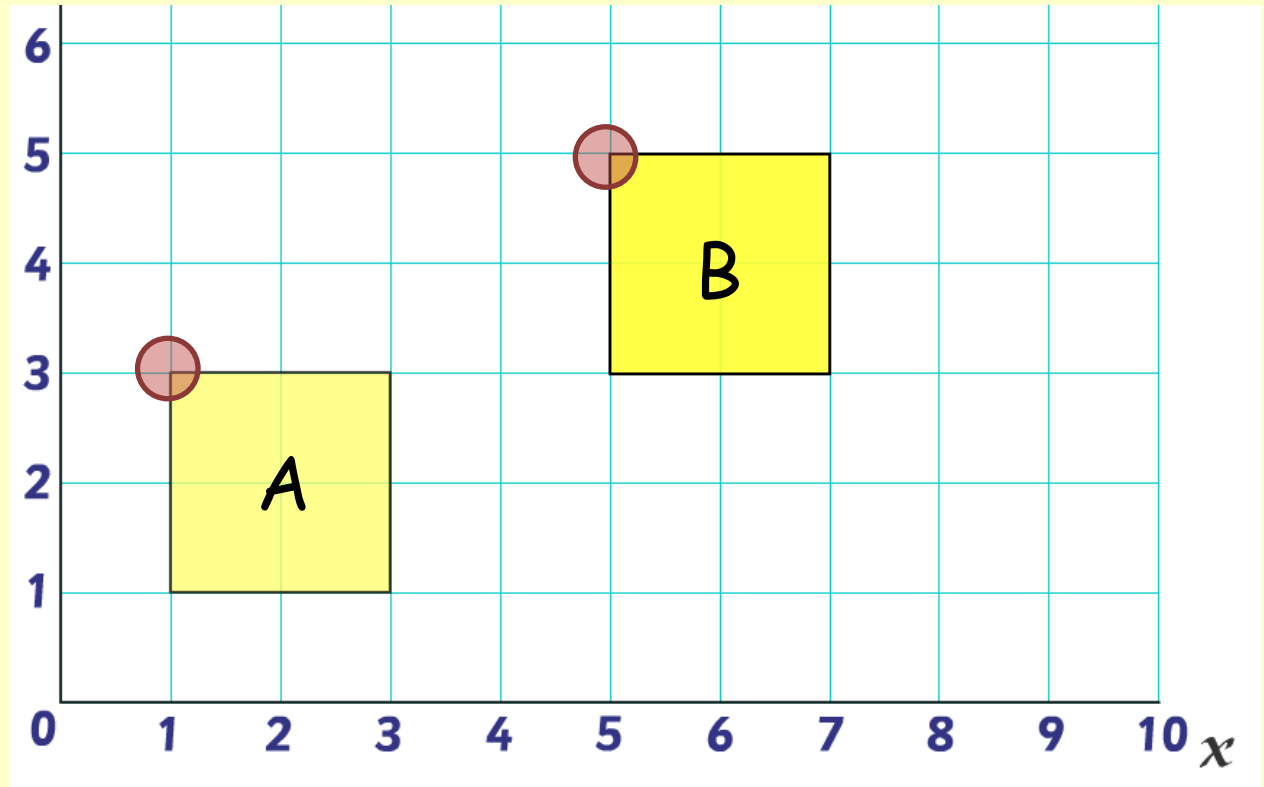
Translations

- To move from shape A to B, pick a corner. Find the new corner.



Translations

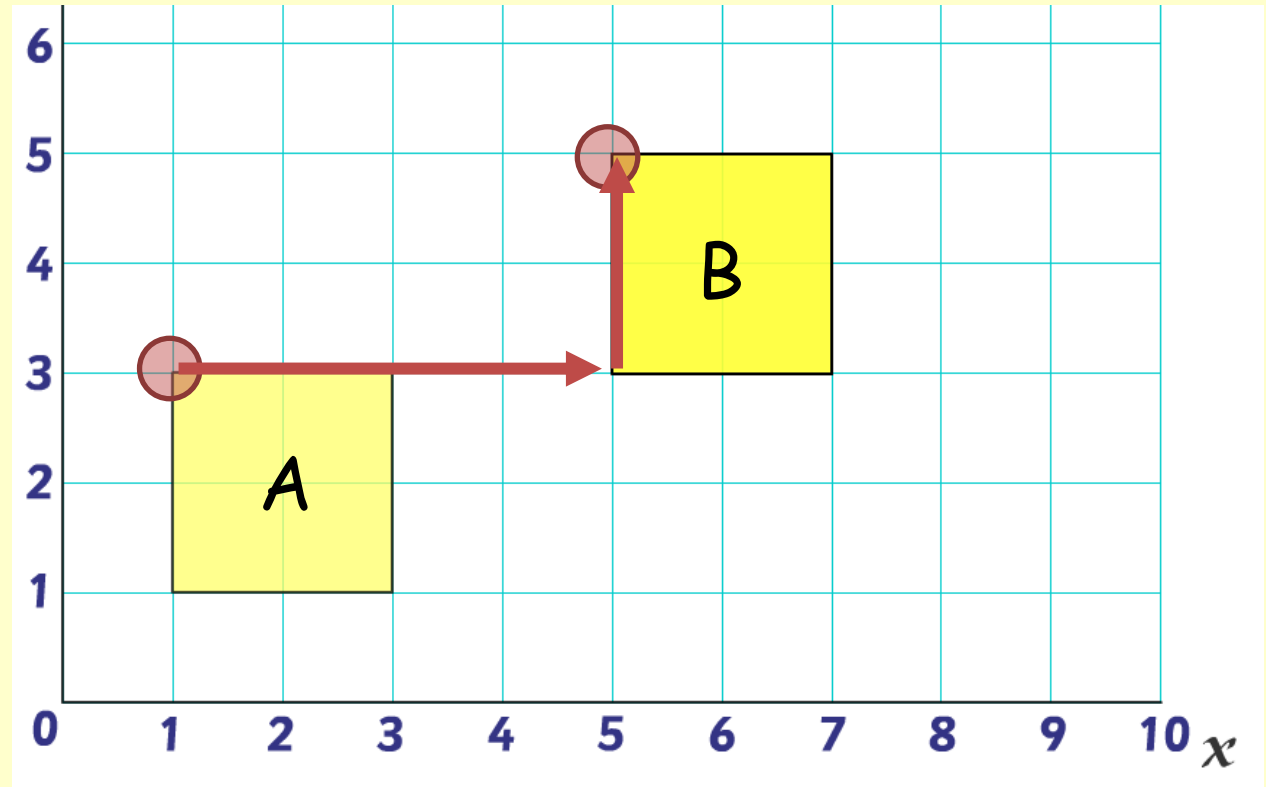
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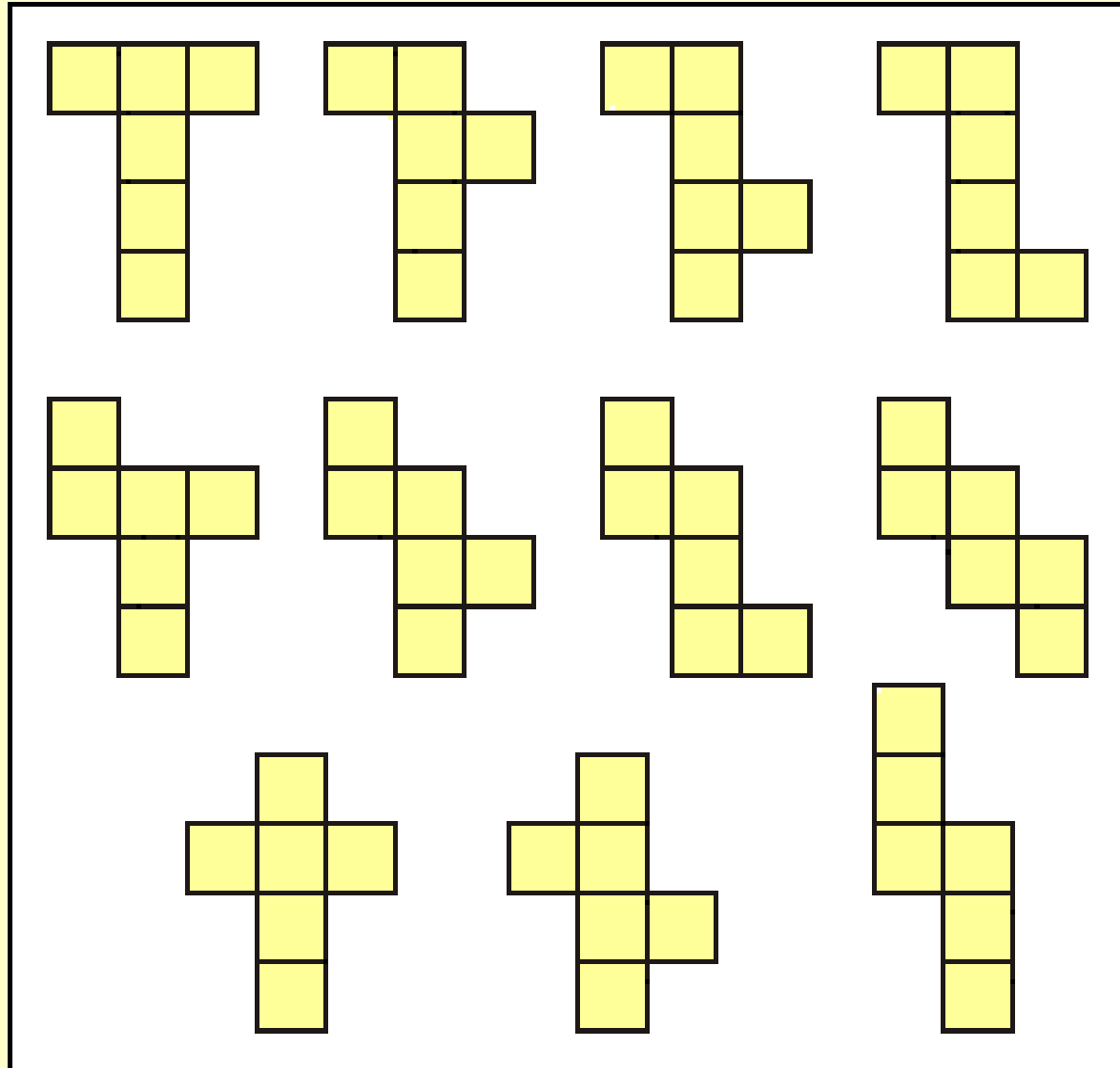
Translations

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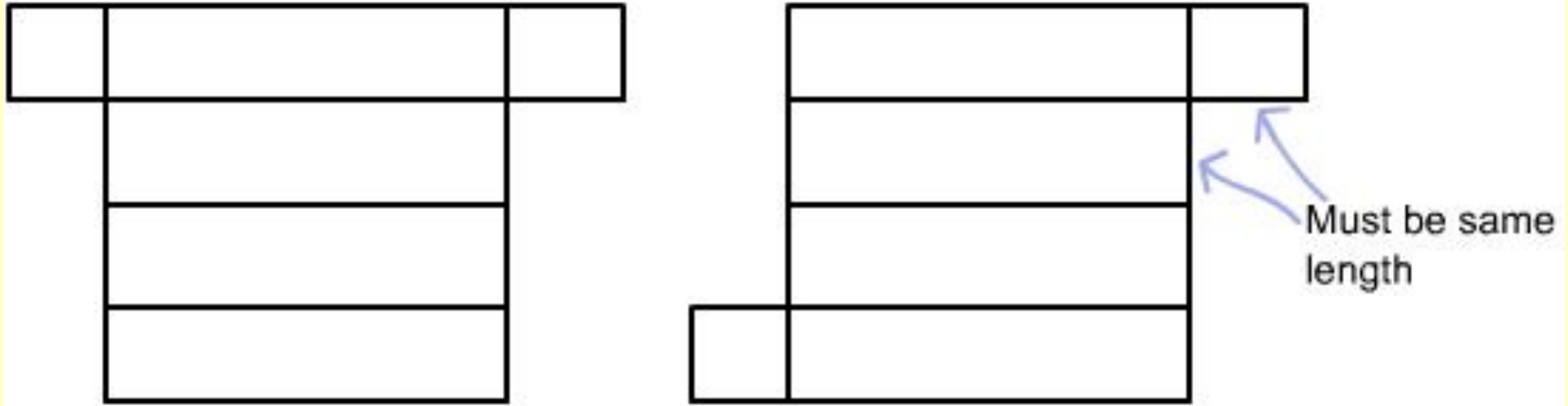
- 4 right,
then 2 up.



The 11 nets of cubes



Nets of cuboids



Tips

- For questions worth 2 or more marks, **ALWAYS** show your working out.
- Read the question twice carefully (and **ASK** for it to be read out if unsure).
- Highlight key points (how much more, find the product, circle one, ... etc).
- If finished, go back through and check everything **VERY** carefully.

GOOD

😊 LUCK!

