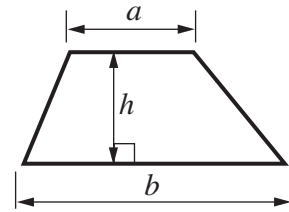
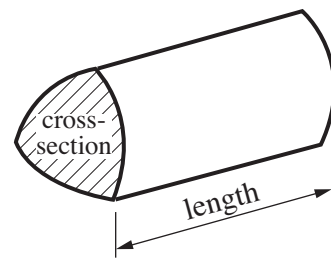


Formulae Sheet

$$\text{Area of trapezium} = \frac{1}{2} (a + b)h$$



$$\text{Volume of prism} = (\text{area of cross-section}) \times \text{length}$$



PLEASE DO NOT WRITE ON THIS PAGE

8 Ruth and Joy grow potatoes.
They each weighed the first ten potatoes they dug up.
Here are the weights, in grams, of Ruth's potatoes.

160 182 195 180 74 106 210 167 170 83

(a) Calculate the range of these weights.

(a) g [1]

(b) Calculate the mean weight of Ruth's potatoes.

(b) g [3]

(c) For Joy's potatoes:

- the range was 160 g,
- the mean was 145 g.

(i) Joy says:

My potatoes weigh more than Ruth's.

Is Joy right? Explain how you decided.

..... because
..... [1]

(ii) Ruth says:

The weights of my potatoes are more consistent than Joy's.

Is Ruth right? Explain how you decided.

..... because
..... [1]

9 (a) $P = A + 2B$.

Find the value of P when $A = 3.1$ and $B = 2.7$.

(a) [2]

(b) Simplify.

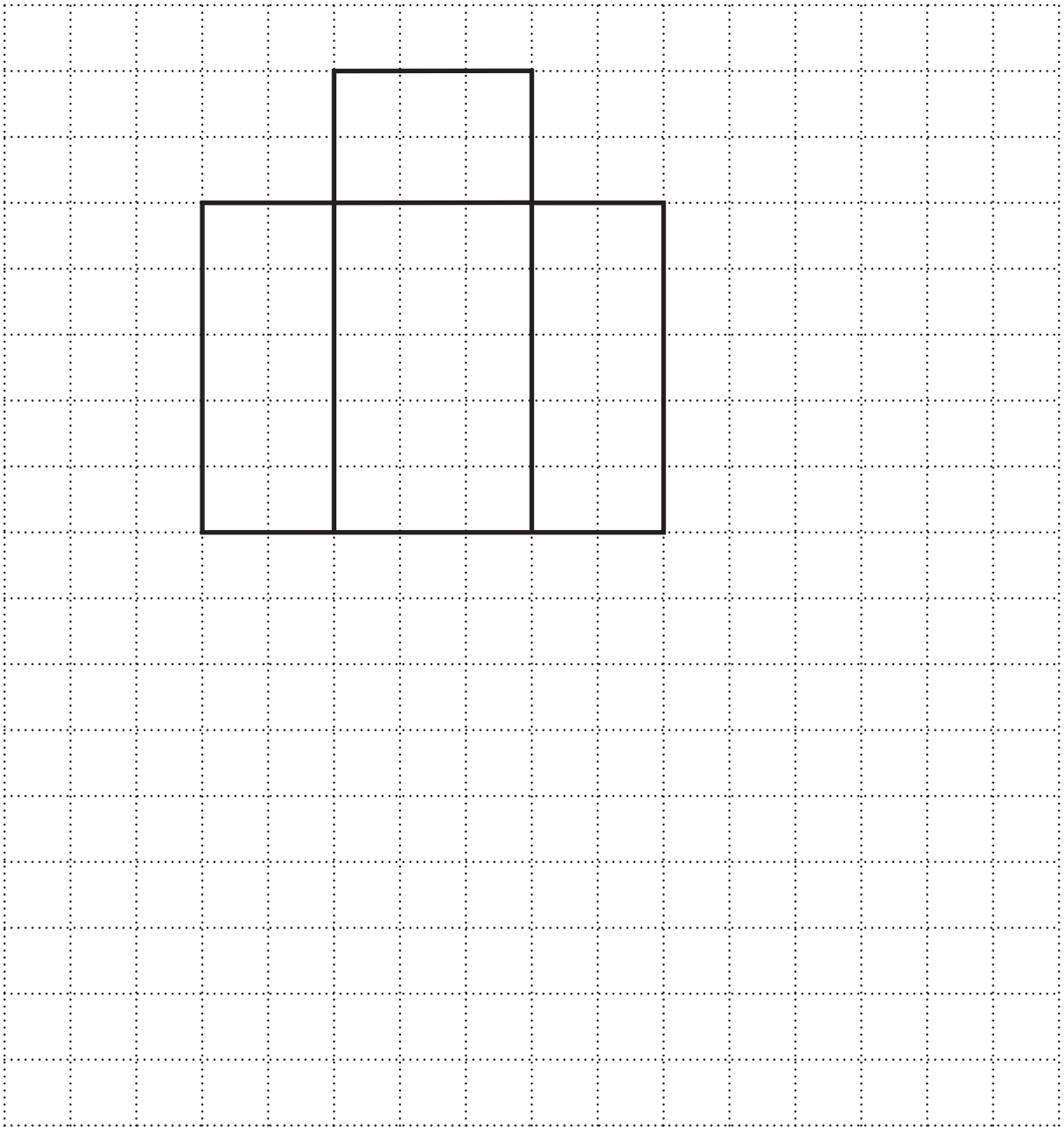
(i) $2c - c$

(b)(i) [1]

(ii) $12x - 6 - 5x + 4$

(ii)..... [2]

- 10 On this centimetre grid, the net of a cuboid has been started.



- (a) Complete the net. [2]
- (b) Work out the volume of the cuboid.

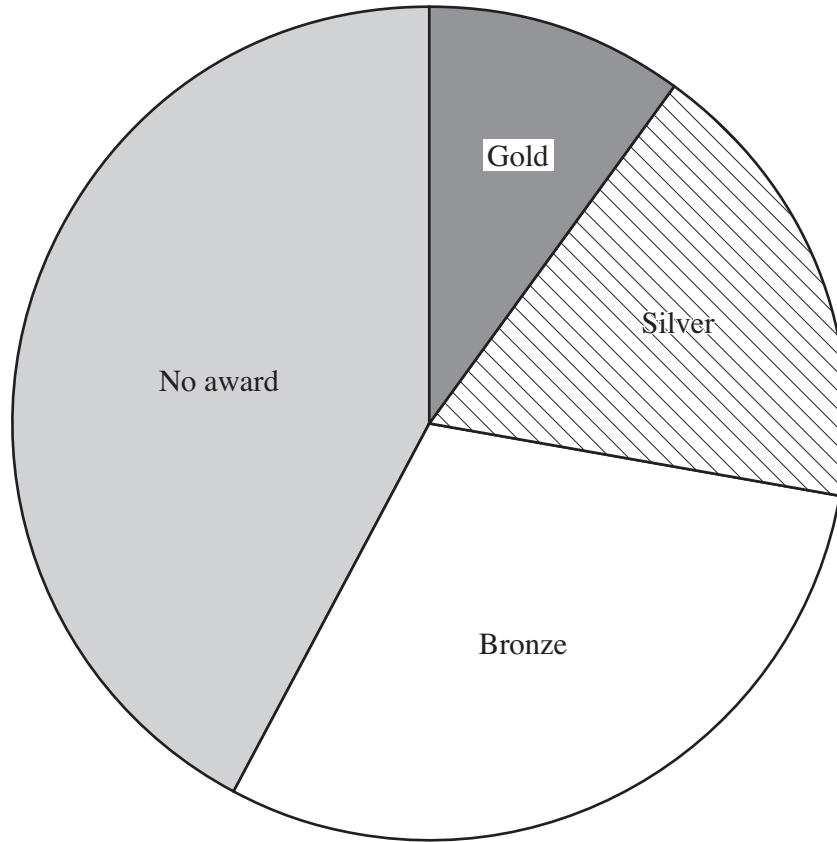
(b) cm^3 [2]

- 11 (a) In year 9 at Fairacres school there are 120 students.
One day, 20% of these students are **not** in school.
 $\frac{2}{3}$ of those students who are in school enter a maths competition.

How many year 9 students enter the maths competition?

(a) [4]

(b) Students in the competition receive a Gold, Silver or Bronze award, or no award. This pie chart summarises the awards for the whole school.



18 students received a Gold award.

How many students received a Bronze award?
Explain your reasoning.

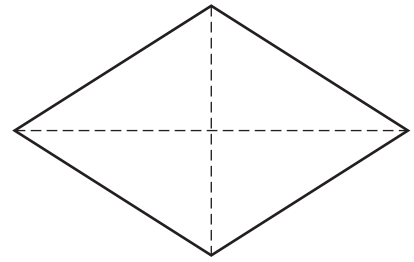
..... because

.....

..... [2]

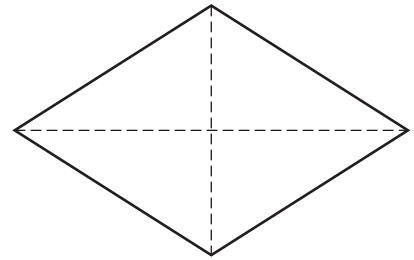
TURN OVER FOR QUESTION 12

- 12 (a) (i) Add shading to this shape so that it has no lines of symmetry but rotation symmetry of order 2.



[1]

- (ii) Add shading to this shape so that it has no lines of symmetry but rotation symmetry of order 1.



[1]

- (b) For each of these statements, write whether it is true or false for an **isosceles trapezium**.

	True / False
It has two sets of parallel sides.
It has only one pair of equal angles.
Its diagonals have equal length.
Its diagonals bisect each other at right angles.

[2]

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