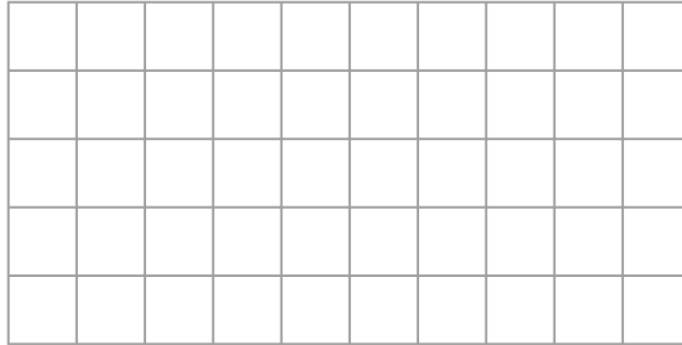**2D AND 3D SHAPES**

Pearson Edexcel – Specimen 2 - Paper 3 (Calculator) Foundation Tier

1.

4 On the grid, draw a parallelogram.
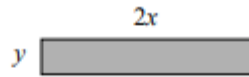
(Total for Question 4 is 1 mark)

2.

17 Here is a rectangle made of card.

$2x$

y [rectangle]

The measurements in the diagram are in centimetres.

Lily fits four of these rectangles together to make a frame.

[frame diagram]

The perimeter of the inside of the frame is P cm.

(a) Show that $P = 8x - 4y$

(2)

Magda says,

"When x and y are whole numbers, P is always a multiple of 4."
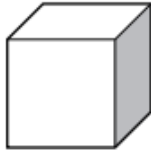
(b) Is Magda correct?
You must give a reason for your answer.

(2)

(Total for Question 17 is 4 marks)

3.

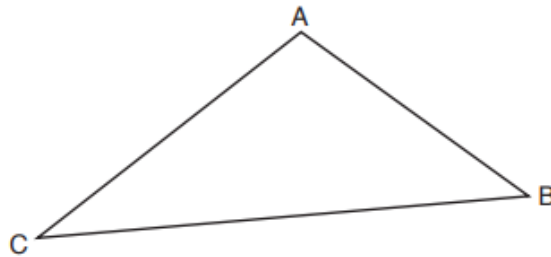**1** **(a)** Use one of these words to complete the sentence.

edges   vertices   faces   planes

A cube has 12 .... [1]

(b) The diagram shows a triangle ABC.

Mark angle CAB. [1]

(c) Use one of these terms to complete the sentence.

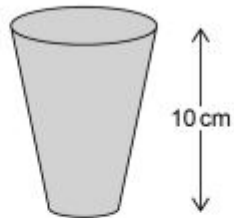a circle   an angle   a straight line   the perimeter
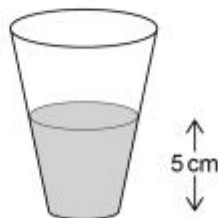
The shortest distance between two points is .... [1]

4.

11   Jo has a full cup of coffee.

10 cm

She drinks some of it.

5 cm

She says,

"Half of the coffee is still in the cup, because 5 cm is half of 10 cm"

Is she correct?

Tick a box.

☐ Yes   ☐ No

Give a reason for your answer.

[1 mark]

_____

_____

_____

_____

5.

12 (a) How many edges are there on a square-based pyramid?
Circle your answer.

[1 mark]

        4   5   8   12

12 (b) How many faces of a triangular prism are triangles?
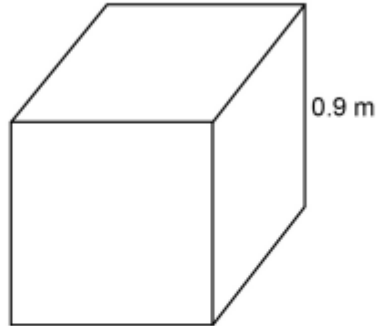Circle your answer.

[1 mark]

        2   3   4   5

6.

13   A cube has edge length 0.9 metres.

0.9 m

Work out the **total** surface area of the cube.

Give your answer in **square centimetres**.

[3 marks]

_____

_____

_____

_____
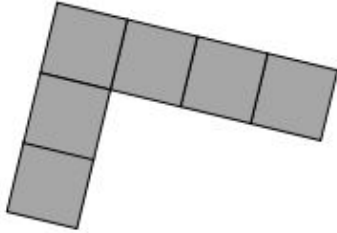
_____

_____

_____

_____

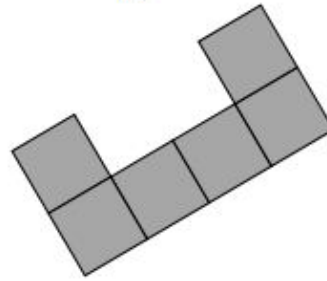Answer _____ cm²

7.

2   Which of these is the **net** of a **cube**?

Circle the correct letter.

[1 mark]

A

B

C

D

8.

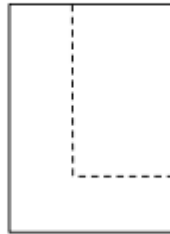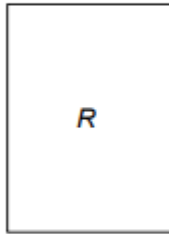**14** Shape *R* is a rectangle.

A smaller rectangle is cut from *R* to form shape *L*.

Not drawn
accurately

Which **one** of these statements is true?

Tick a box.

[1 mark]

The perimeter of *R* is **longer than** the perimeter of *L* ☐

The perimeter of *R* is the **same as** the perimeter of *L* ☐

The perimeter of *R* is **shorter than** the perimeter of *L* ☐
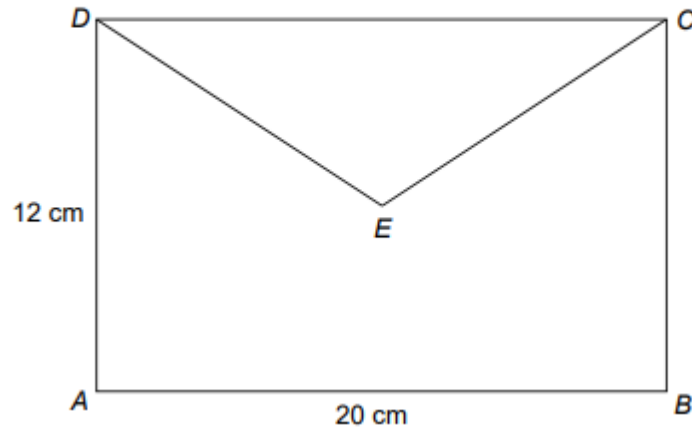
It is **not** possible to tell which perimeter is longer ☐

9.

26   *E* is the centre of rectangle *ABCD*.

Not drawn
accurately

Work out the length *DE*.

[3 marks]

_____

_____

_____

_____

_____

Answer _____ cm