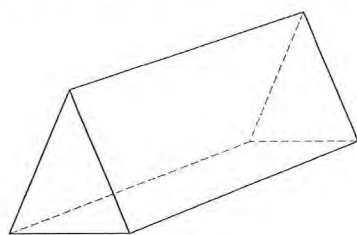


# 2-D Shapes & 3-D Forms (F)

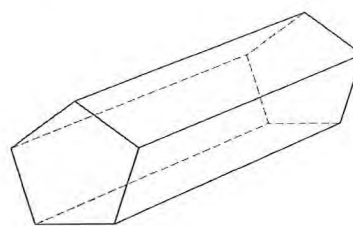
A collection of 9-1 Maths GCSE Sample and Specimen questions from AQA, OCR, Pearson-Edexcel and WJEC Eduqas.

Name:	
Total Marks:	

1. These prisms have different shapes as end faces.



Triangle



Pentagon

(a) Complete this table.

Shape of end face	Number of faces	Number of edges	Number of vertices
Triangle (3 sides)	5	9	6
Rectangle (4 sides)	6	12	8
Pentagon (5 sides)	7	15	10
Hexagon (6 sides)	8	18	12

$n$

$n+2$

$3n$

$2n$

[2]

(b) How many edges and vertices does a prism with a 100-sided end face have?

(b) edges ..... 300 .....

vertices ..... 200 .....

[2]

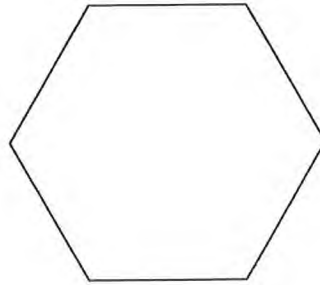
(c) F is the number of faces in a prism.

N is the number of sides of its end face.

Write down a formula connecting F and N.

(c) .....  $F = N + 2$  ..... [2]

2. (a) Write down the mathematical name of this shape.



(a) ..... *hexagon* ..... [1]

(b) How many vertices does a cube have?

(b) ..... *8* ..... [1]

(c) Sketch an isosceles triangle.

Mark the triangle to show that it is isosceles.

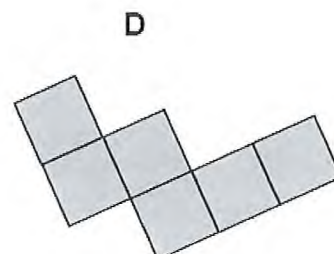
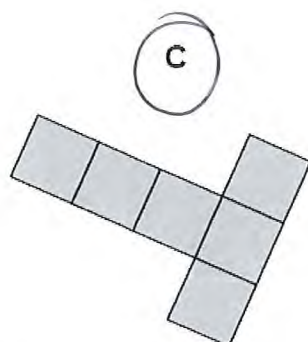
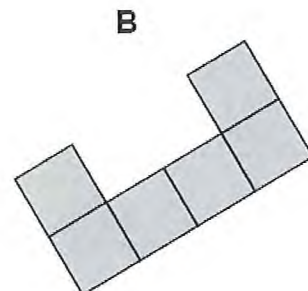
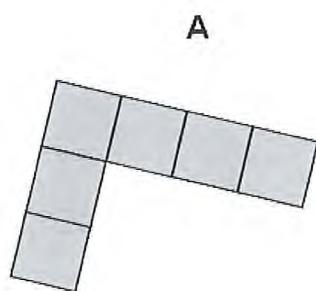


[1]

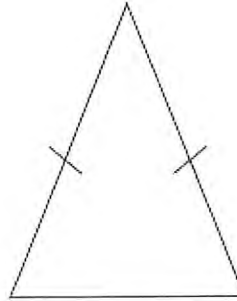
3. Which of these is the net of a cube?

Circle the correct letter.

[1]



4. This triangle is drawn accurately.



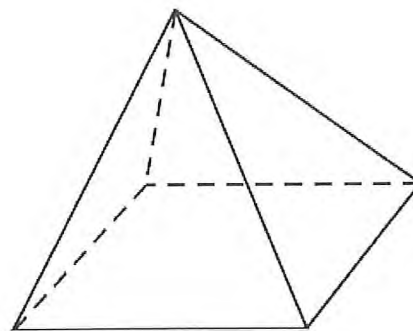
What type of triangle is it?

Tick two boxes.

- acute-angled
- obtuse-angled
- equilateral
- isosceles
- scalene

[1]

5. Here is a square-based pyramid.



(i) How many faces does the pyramid have?

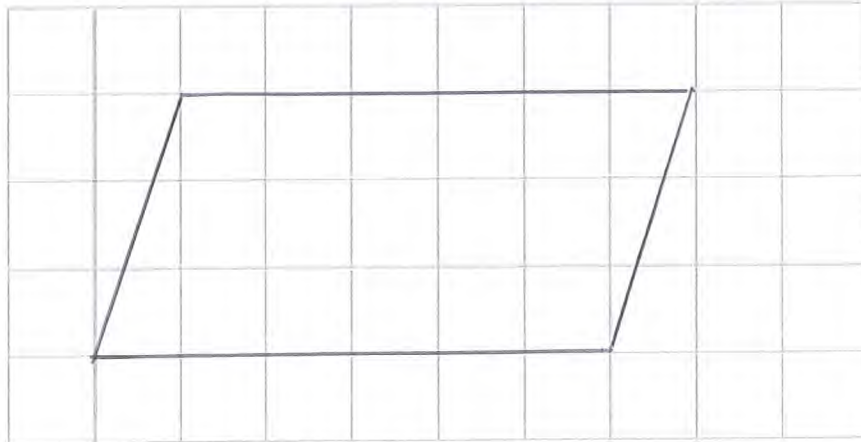
.....5.....

(ii) How many edges does the pyramid have?

.....8.....

[2]

6. On the grid, draw a parallelogram.



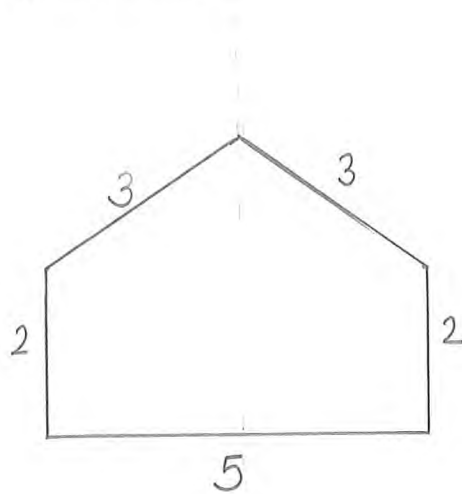
[1]

7. A company's logo

- is a pentagon
- has exactly one line of symmetry
- has sides with whole number lengths
- has a perimeter of 15 cm

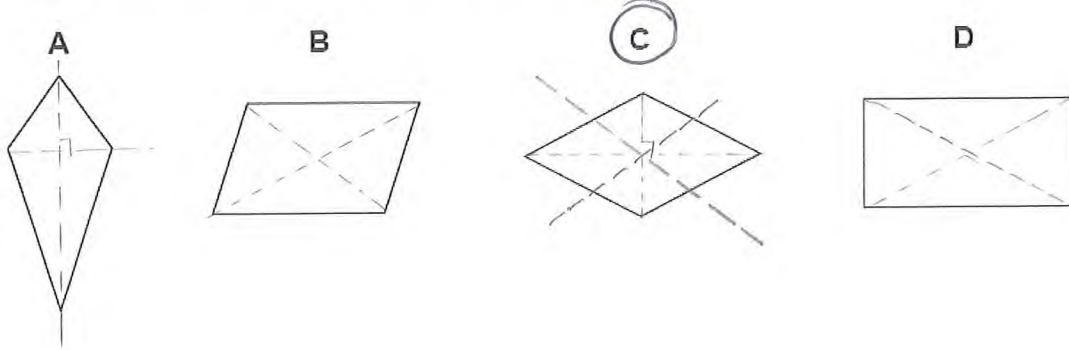
Draw a sketch of a possible logo.

Label each side with its length.



[2]

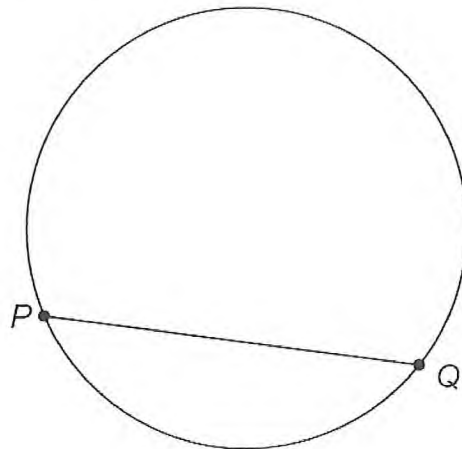
8. Which shape has two lines of symmetry and its diagonals intersecting at  $90^\circ$ ?



Circle the correct letter.

[1]

9. Circle the word that describes the straight line PQ.



chord

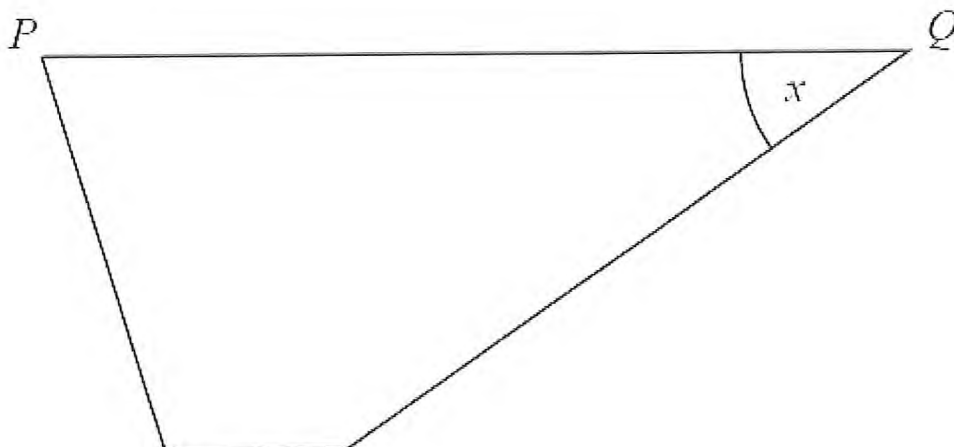
diameter

radius

tangent

[1]

10. Here is a trapezium.



This diagram is accurately drawn.

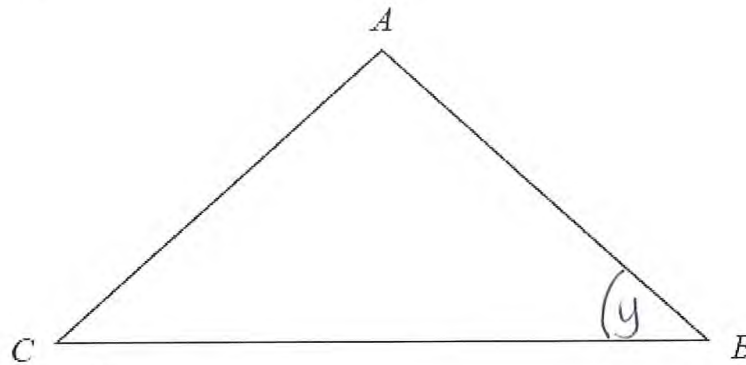
(a) Measure the length of the line PQ.

.....11.5cm.....cm [1]

(b) Measure the size of the angle marked x.

.....35°.....° [1]

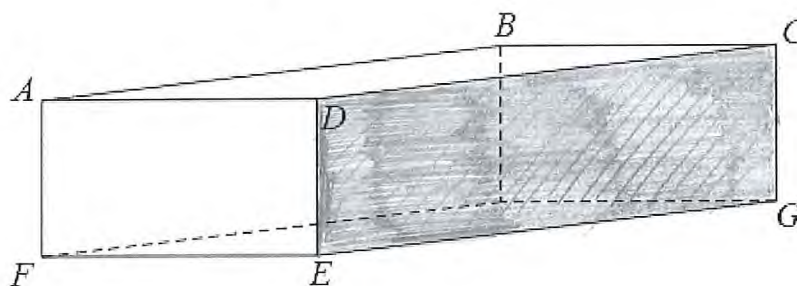
11. Here is a triangle ABC.



(a) Mark, with the letter y, the angle CBA.

[1]

Here is a cuboid.



Some of the vertices are labelled.

(b) Shade in the face CDEG.

[1]

(c) How many edges has a cuboid?

.....12..... [1]