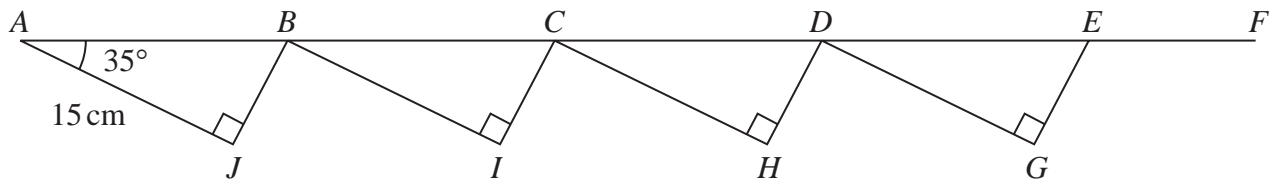**1** The diagram shows four congruent right-angled triangles *ABJ*, *BCI*, *CDH* and *DEG*.
The diagram also shows the straight line *ABCDEF*.

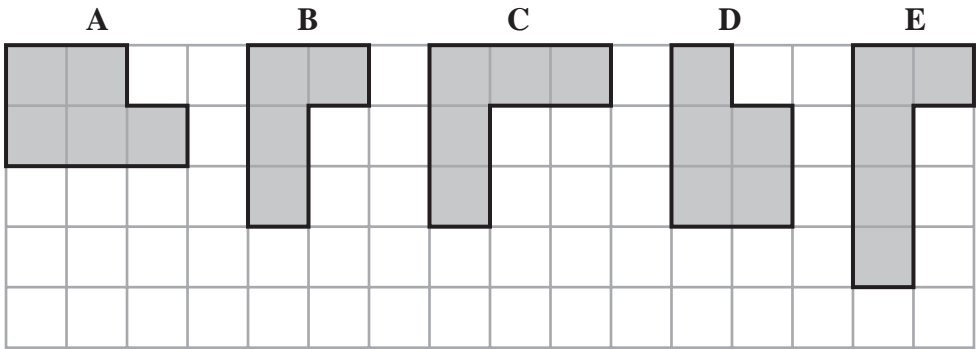Diagram **NOT**
accurately drawn

$AJ = 15$ cm
Angle $BAJ = 35°$

$AF = 80$ cm

Work out the length of *EF*.
Give your answer correct to 3 significant figures.

.... cm

(Total for Question 1 is 5 marks)

2 The diagram shows five shaded shapes on a grid of squares.

Two of the shapes are congruent.

(a) Write down the letters of these shapes.

.... and ....

(1)

(b) On the square grid below, draw a shape that is similar to but is **not** congruent to shape **B**.
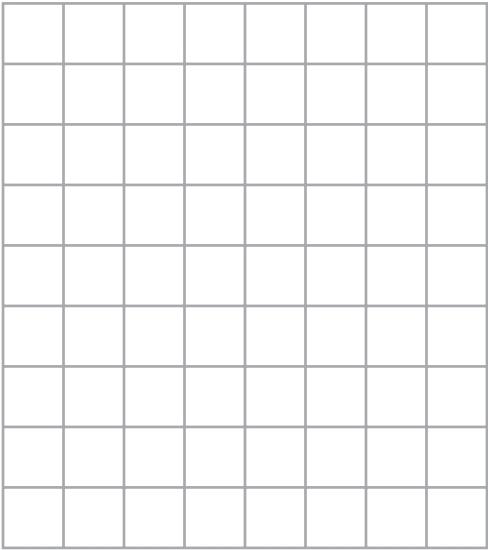
(2)

All of the shapes on the grid have 6 sides.

(c) Write down the mathematical name for a shape that has 6 sides.

....

(1)

(Total for Question 2 is 4 marks)

3 The diagram shows two congruent isosceles triangles and parts of two congruent regular polygons, **X** and **Y**.
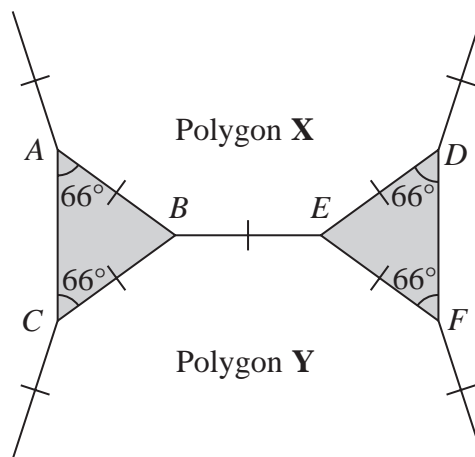
Polygon **X**

A

66°

B

E

D

66°

66°

66°

C

F

Polygon **Y**

Diagram **NOT** accurately drawn

The two regular polygons each have n sides.

Work out the value of n.

$n =$ ....

(Total for Question 3 is 3 marks)

4 Here are six shapes.

| A | B | C | D | E | F |
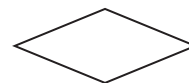
Two of these shapes are congruent.

(c) Write down the letters of these two shapes.

.... and ....

(1)

(Total for Question 4 is 1 marks)

5 Here are six triangles drawn on a grid of squares.
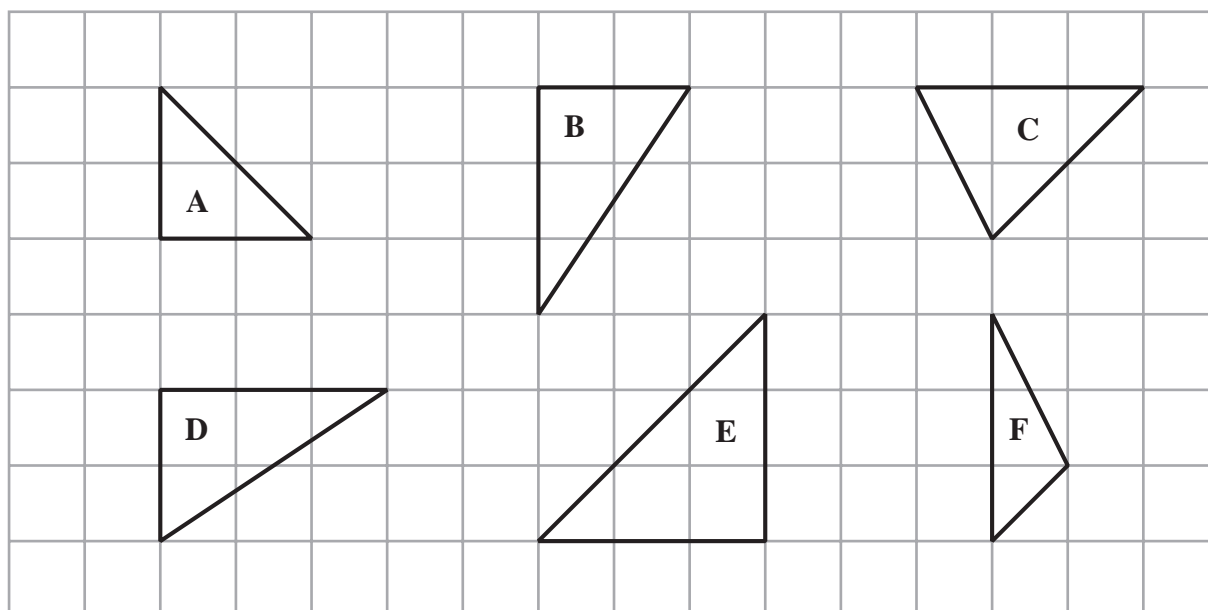
Two of these triangles are congruent.

(c) Write down the letters of these two triangles.

.... and ....

(1)

(Total for Question 5 is 1 marks)