1 Work out the size of an exterior angle of a regular hexagon.

(2 marks)

2 Work out the size of each interior angle in a regular octagon.

(2 marks)

3 Work out the size of each interior angle in a regular pentagon.

(2 marks)

4 The size of each exterior angle in a regular polygon is 20°.
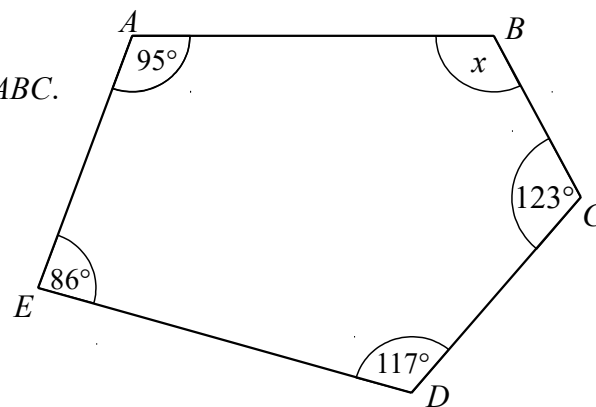Work out how many sides the polygon has.

(2 marks)

5 The size of each exterior angle in a regular polygon is 18°.
Work out how many sides the polygon has.

(2 marks)

6 The size of each interior angle in a regular polygon is 165°.
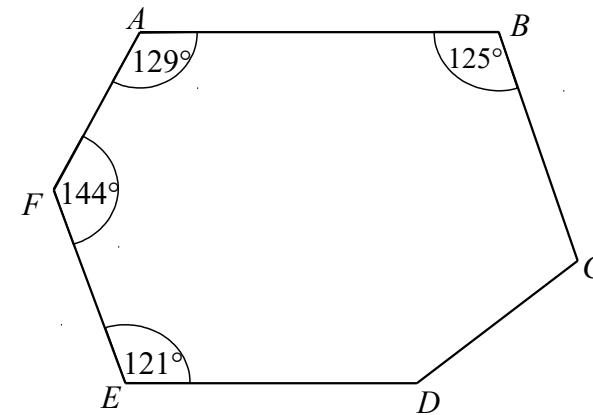Work out how many sides the polygon has.

(2 marks)

7 *ABCDE* is a pentagon.
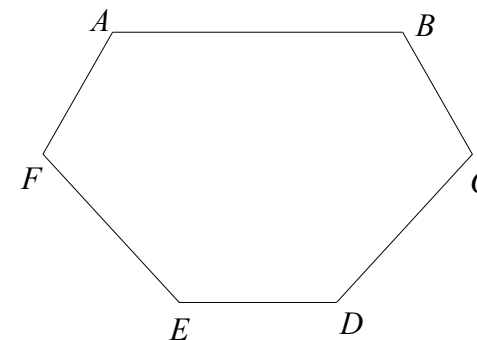Work out the size of angle *ABC*.

(2 marks)

8

ABCDEF is a hexagon.
Angle *CDE* = 2 × Angle *BCD*

Work out the size of angle *CDE*.

(3 marks)

9

ABCDEF is a hexagon.
Angle *BAF* = Angle *ABC* = Angle *AFE* = Angle *BCD*.
Angle *DEF* = Angle *CDE* = 130°

Work out the size of angle *BAF*.
You must show all your working.
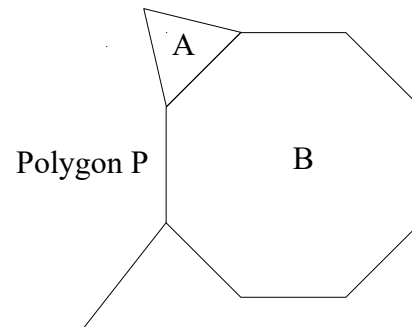
(3 marks)

| Grade 4 | Angles in Polygons | Grade 4 |

10 Shape A is a regular triangle.
Shape B is a regular octagon.

Another regular polygon,
P, is shown on the diagram.

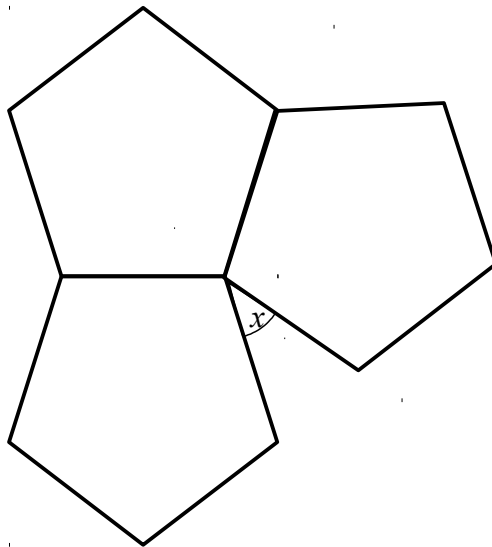How many sides does polygon P have?

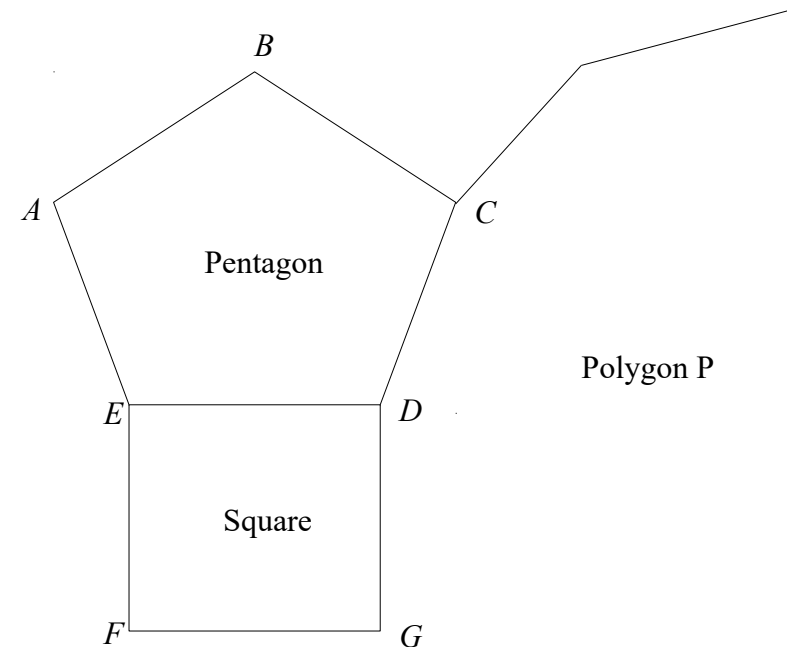You must show your working.

Polygon P

A

B

(4 marks)

11

The diagram shows three regular pentagons meeting at a point.

Work out the size of the angle marked *x*.
You must show all your working.

(3 marks)

12

B

A

C

Pentagon

Polygon P

E   D

Square

F   G

The diagram shows a regular pentagon, ABCDE, and a square, EDFG.

The lines CD and DG are both sides of another regular polgon, P.

How many sides does polygon P have?

You must show how you got your answer.

(4 marks)