



Education Consultancy

Edexcel GCSE Mathematics ANGLES: POLYGONS

Materials Required:

- Pen - HB Pencil - Ruler (in centimetres and millimetres) - Protractor - Compass

Information:

The marks allocated for each question are displayed within brackets – utilise this information to gauge the appropriate amount of time to dedicate to each question
Questions marked with an asterisk (*) will assess your written communication; be careful of spelling, punctuation and grammar with these questions

Instructions:

Use a black ink pen to answer all questions
Fill your name in the section below
Answer the questions in the spaces provided
Show your working out for all answers

Advice:

- Carefully read the question before attempting to answer it
- Be vary of time and try to answer every question
- If you have enough time in the end, go back and check your answers. A good way to check your answers is to retry the question with the hope of getting the same answer as before without looking at your working out from before

NO CALCULATOR ALLOWED

NAME:

1 Each exterior angle of a regular polygon is 30°.

Work out the number of sides of the polygon.

	Ó
	(2 marks)
2.	Diagram NOT accurately drawn
Work out the size of an exterior angle of a regula	r pentagon.
Ś	° (2 marks)
	Diagram NOT accurately drawn
Calculate the size of the exterior angle of a regula	ar hexagon.
	٥
	(2 marks)
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4 The size of each exterior angle of a regular polygon is 40° .

Work out the number of sides of the regular polygon.

		(2 marks)
5.	The size of each interior angle of a regular polygon is 156°. Work out the number of sides of the polygon.	
		(3 marks)
0.	Here is a regular polygon with 9 sides. Diagram NOT accurately drawn Work out the size of an exterior angle.	
	o	(2 marks)





Diagram NOT accurately drawn

The diagram shows a regular hexagon and a regular octagon.

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

.....o

(4 marks)



The diagram shows a square and 4 regular pentagons.

Work out the size of the angle marked *x*.

•

(4 marks)



Diagram **NOT** accurately drawn

ABCDE and *EHJKL* are regular pentagons. *AEL* is an equilateral triangle.

Work out the size of angle DEH.

.....° (4 marks)

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11.

12. The diagram shows part of a pattern made from tiles.



The pattern is made from two types of tiles, tile A and tile B.

Both tile A and tile B are regular polygons.

Work out the number of sides tile A has.

.....

(4 marks)