GCSE Exam Questions

Interior and Exterior Angles | Geometry & Measure

GCSE Exam Questions: Interior and Exterior Angles

1) (a) The exterior angle of a regular polygon is 30°.

Work out the number of sides of the polygon.

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(2)

(b) Calculate the interior angle of the polygon.

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(2)

(4 marks)

2) The size of each interior angle of a regular polygon is 156°.

Work out the number of sides of the polygon.

(3 marks)

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GCSE Exam Questions: Interior and Exterior Angles

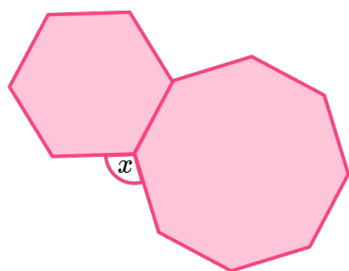**3)** The diagram shows a regular hexagon and a regular octagon.

Diagram **NOT**
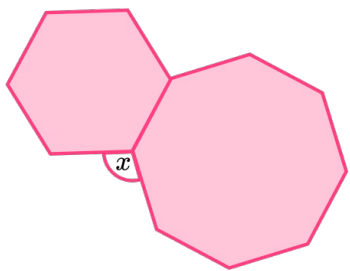accurately drawn

Calculate the size of the angle marked x.

You must show all your working.

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(4 marks)

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GCSE Exam Questions: Interior and Exterior Angles Answers

	Question	Answer		Marks
1) (a)	The exterior angle of a regular polygon is 30°. Work out the number of sides of the polygon.	**(a)**	$360 \div 30$ 12 sides	**(1)** **(1)**
(b)	Calculate the interior angle of the polygon.	**(b)**	180 - 30 150°	**(1)** **(1)**
2)	The size of each interior angle of a regular polygon is 156°. Work out the number of sides of the polygon.		180 -156 (= 24) $360 \div 24$ (=15) 15 sides	**(1)** **(1)** **(1)**
3)	The diagram shows a regular hexagon and a regular octagon. *Diagram NOT accurately drawn* Calculate the size of the angle marked *x*. You must show all your working.		$360 \div 6$ (=60) $360 \div 8$ (=45) 60 + 45 105°	**(1)** **(1)** **(1)** **(1)**

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