

GCSE Exam Questions

Angles in a Triangle | Geometry & Measure



GCSE Exam Questions: Angles in a Triangle

1) Find the size of angle *x*.



(2 marks)

2) (a) Write an equation involving a



(b) Find the size of the smallest angle in the triangle.

(2) (2 marks)

3) Show that triangle *ABC* is an isosceles triangle.

You must give a reason for each stage of your working.



(4 marks)

(2)



GCSE Exam Questions: Angles in a Triangle Answers

	Question	Answer	Marks
1)	Find the size of angle <i>x</i> .	$27 \times 2 = 54$	(1)
	x 27°	180 - 54 = 126°	(1)
2) (a)	Write an equation involving <i>a</i> .	4a - 23 + 2a + 5 + 90	(1)
	4 <i>a</i> - 23 2 <i>a</i> + 5	$6a + 72 = 180^{\circ}$	(1)
(b)	Find the size of the smallest angle in the triangle.	6a = 108	(1)
		$a = 18^{\circ}$	(1)
		$2 \times 18 + 5 = 41^{\circ}$	(1)
3)	Show that triangle <i>ABC</i> is an isosceles triangle. You must give a reason for each stage of your working.	Angle $BAC = 48^{\circ}$ (vertically opposite angles) Angle $CBD =$ $180 - 53 - 31 = 96^{\circ}$ (angles in a triangle = 180°)	(1) (1)
		Angle $BCA =$ 180 - 96 - 48 = 48° (angles in a triangle = 180°) 2 angles equal therefore isosceles triangle.	(1)
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