

Topic Test 1 (20 minutes)

Circle theorems (non-calculator) - Higher

The diagram shows a circle centre O.

AB = BC

ECF is a tangent.



Not drawn accurately

[1 mark]

Use the diagram to answer questions 1 to 3.

1 What is the size of angle *CAB*? Circle your answer.

	Answer					degrees
3	Work out the size of angle <i>BCD</i> .					[2 marks]
		25°	40°	45°	65°	
2	What is the size of angle <i>ECD</i> ? Circle your answer.					[1 mark]
		25°	40°	45°	65°	

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Work out the size of the obtuse angle AOC.

State clearly any circle theorem you use to answer the question.

[4 marks]



Answer _____ degrees





Not drawn accurately

Prove that angle AOC = 2(x + y).

[4 marks]

6 *CD* = *DE*



Not drawn accurately

Work out the size of angle *CDE*. State clearly any circle theorem you use to answer the question.

[4 marks]

Answer _____ degrees

7 BD and CD are tangents to the circle centre O.



Prove that OAC is an equilateral triangle.

[4 marks]