HIGHER

6.10 Circle Theorems: 10-minute Pack

EDEXCEL 1MA1 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 This question tests circle vocabulary.

(a) Write down the mathematical name for a straight line from the centre of a circle to a point on the circumference. **(1)**

.....

(b) Write down the mathematical name for a straight line joining two points on the circumference of a circle. **(1)**

.....

(c) Write down the mathematical name for a straight line that touches a circle at exactly one point. **(1)**

.....

(d) ABCD is a cyclic quadrilateral, meaning all four vertices lie on the circumference of a circle. Write down the rule connecting the sum of each pair of opposite angles. **(1)**

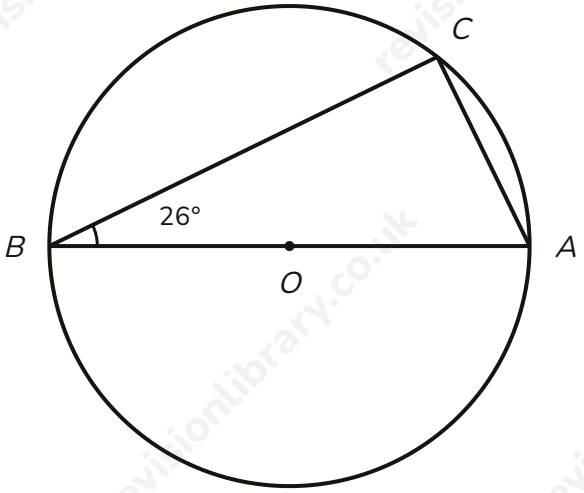
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(Total for Question 1 is 4 marks)

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2 AB is a diameter of a circle with centre O. C is a point on the circumference. Angle ABC = 26 degrees.

Diagram NOT accurately drawn



(a) Write down the size of angle ACB. Give a reason for your answer. **(2)**

(b) Work out the size of angle BAC. **(2)**

(Total for Question 2 is 4 marks)

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Mark scheme · 6.10 Circle Theorems: 10-minute Pack

Question 1

(a) radius cao **B1**

(a) Answer: Radius

(b) chord cao **B1**

(b) Answer: Chord

(c) tangent cao **B1**

(c) Answer: Tangent

(d) opposite angles sum to 180 degrees oe **B1**

(d) Answer: Each pair of opposite angles sums to 180 degrees.

Question 2

(a) 90 degrees cao **B1**

(a) reason: the angle in a semicircle is 90 degrees oe **B1**

(a) Answer: 90 degrees, because the angle in a semicircle is a right angle.

(b) 180 - 90 - 26 oe **M1**

(b) 64 degrees cao **A1**

(b) Answer: 64 degrees

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