

Name:

Date:

Proof of Circle Theorems

GCSE

Edexcel

Mathematics

Grade (9-1)

Mark

Score (%)

<hr/> 21

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Materials

For this paper you must have:

- Ruler
- Pencil, Rubber, Protractor and Compass
- Scientific calculator, which you are expected to use when appropriate

Instructions

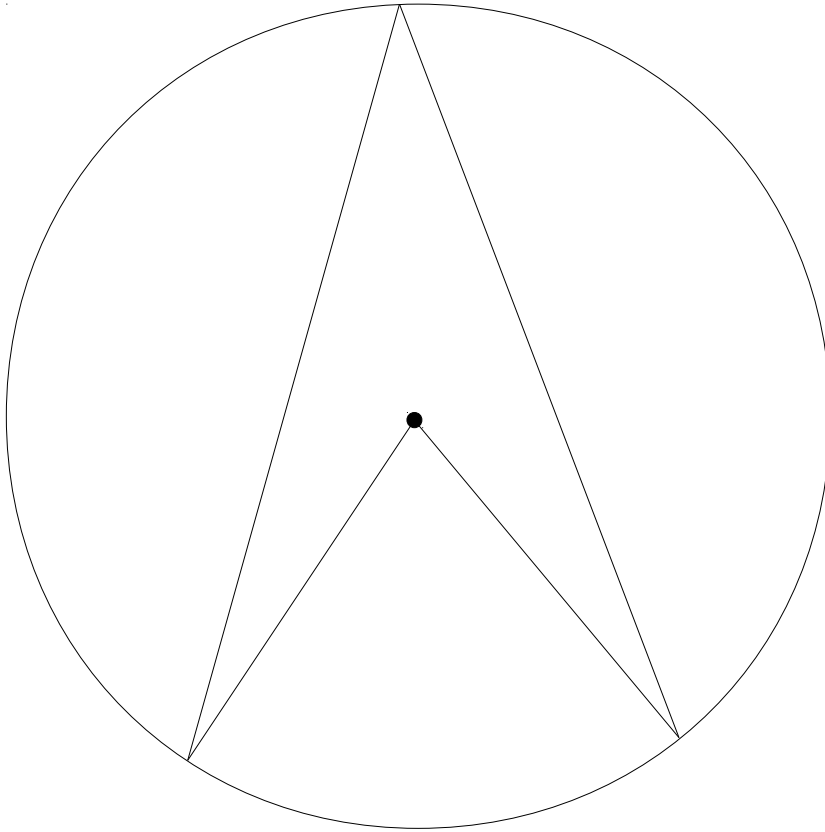
- Answer all questions
- Answer questions in the space provided
- All working must be shown
- Do all rough work in this book. Cross out any rough work you don't want to be marked

Information

- The marks for the questions are shown in brackets

1

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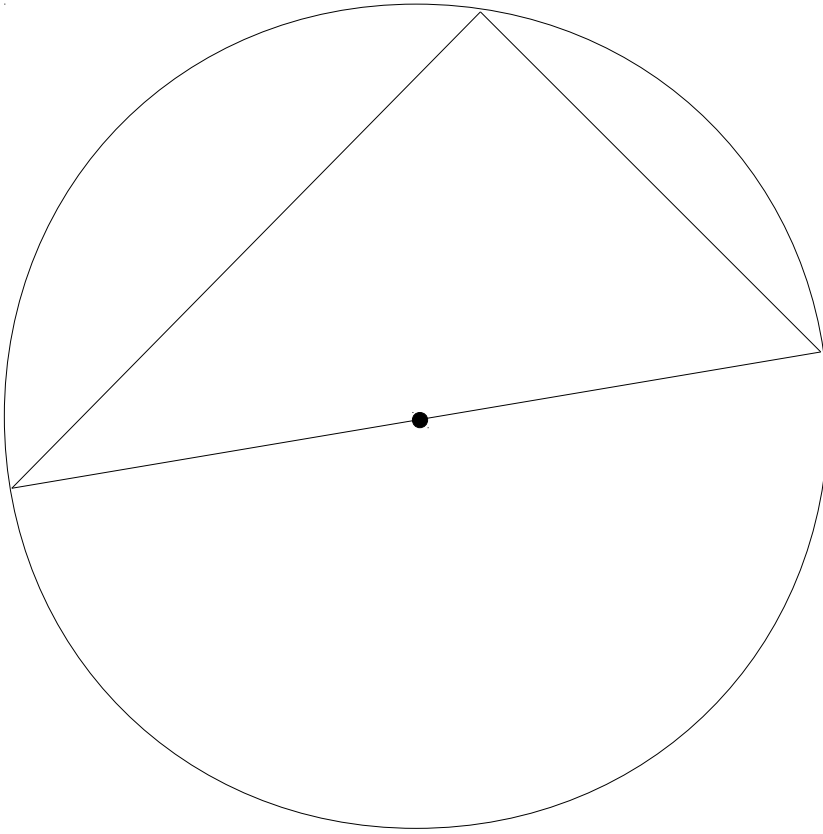


Prove that the angle subtended by an arc at the centre of a circle is twice the angle subtended at any point on the circumference.

.....
(Total for question 1 is 4 marks)

2

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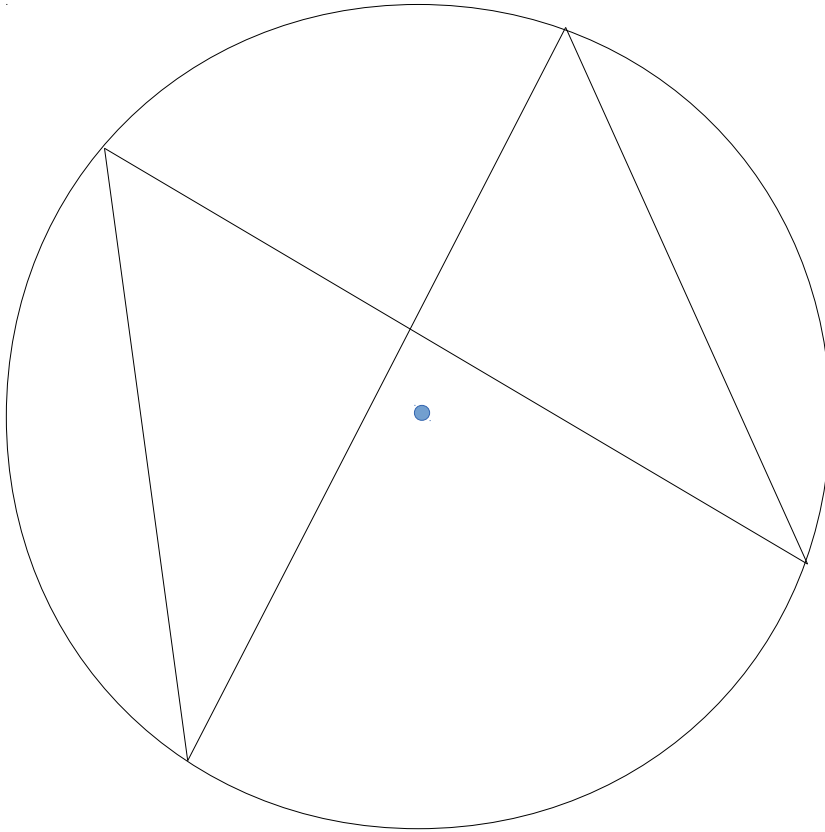


Prove the angle subtended at the circumference by a semicircle is a right angle.

(Total for question 2 is 4 marks)

3

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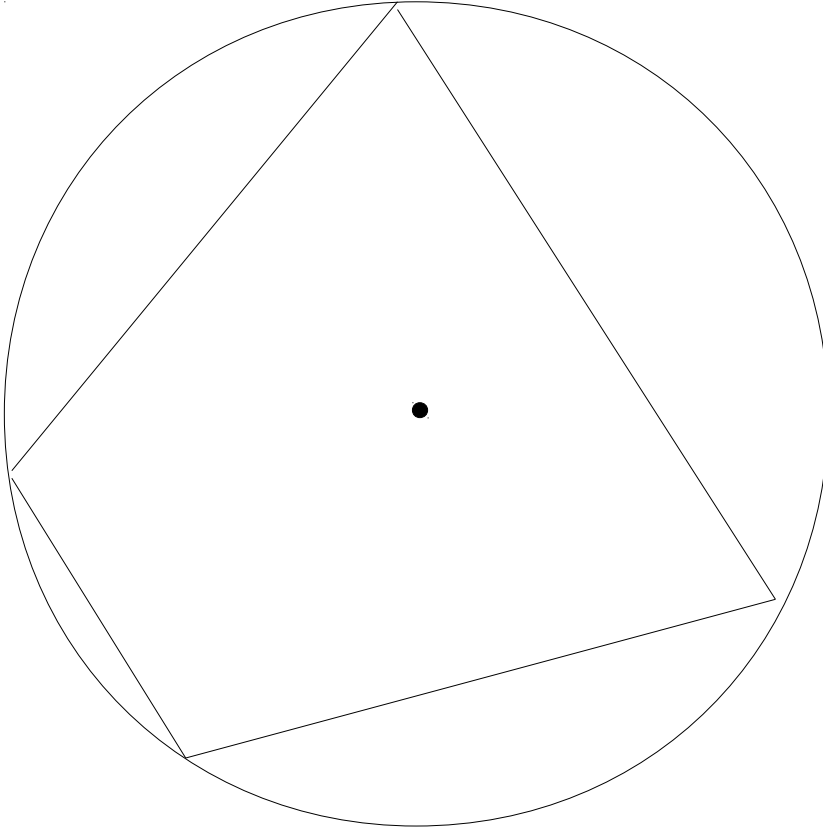
Prove that angles in the same segment are equal.

(Total for question 3 is 4 marks)



4

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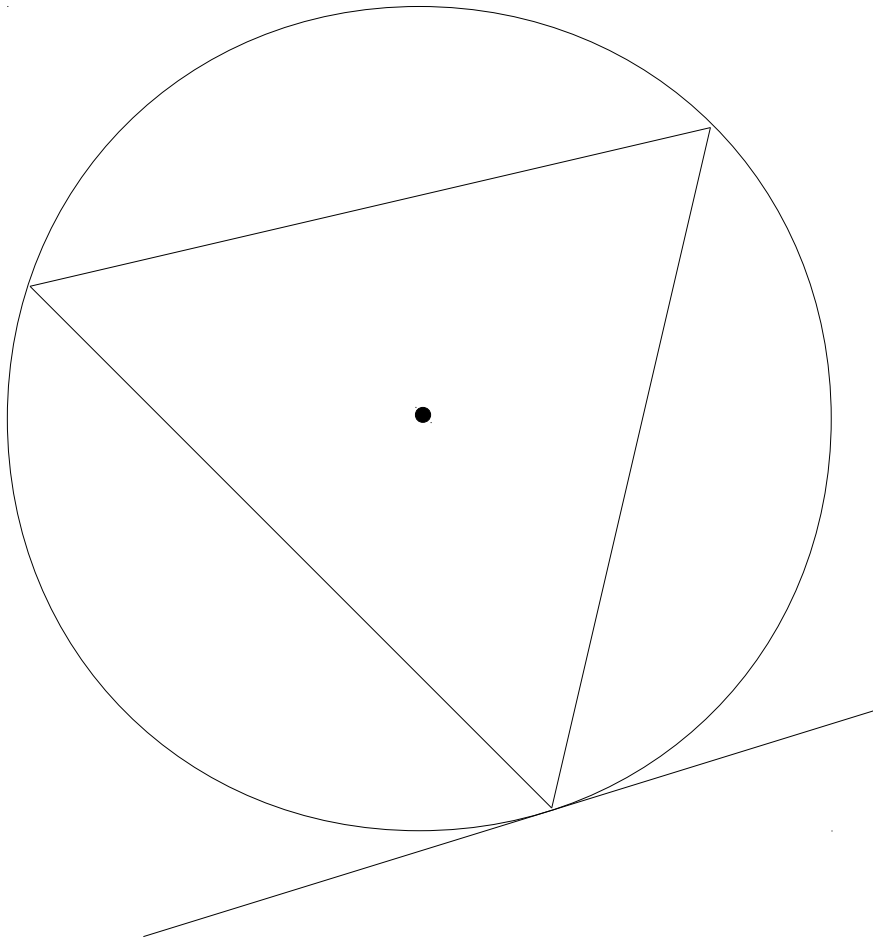
Prove that opposite angles of a cyclic quadrilateral sum to 180°

(Total for question 4 is 4 marks)



5

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Prove the alternate segment theorem.

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(Total for question 5 is 5 marks)