

- 1 On a circle, which of these is **not** a straight line?  
Circle your answer.

[1 mark]

circumference

radius

chord

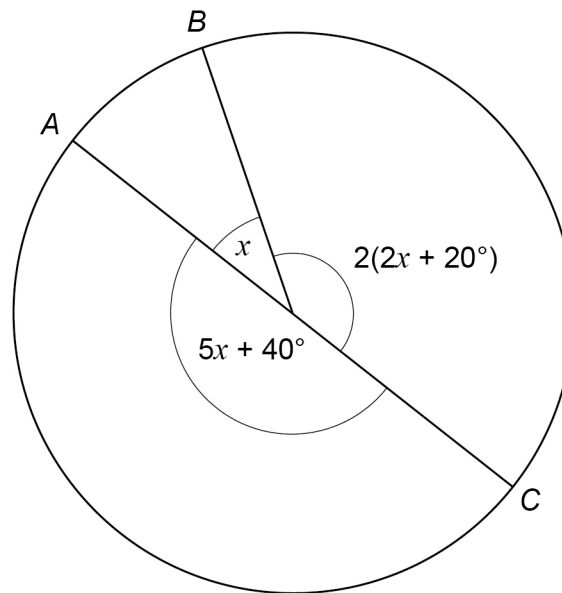
diameter

**2**

$A$ ,  $B$  and  $C$  are three points on a circle.

The radii from  $A$ ,  $B$  and  $C$  are shown.

Not drawn accurately



Is  $AC$  a diameter of the circle?

You **must** show your working.

**[3 marks]**

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slight shadow on the right side, suggesting it's resting on a surface.

- 3 What is the name of the **longest** possible chord in a circle?  
Circle your answer.

[1 mark]

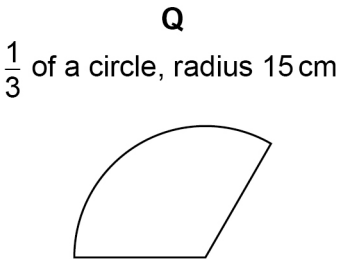
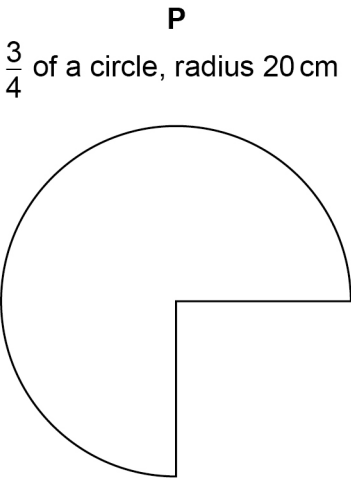
tangent

circumference

radius

diameter

4            Here are two shapes, P and Q.



Not drawn  
accurately

How many times bigger is the area of P than the area of Q?  
You **must** show your working.

[4 marks]

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Answer \_\_\_\_\_

- 5** Which of these parts of a circle is a curve?  
Circle your answer.

**[1 mark]**

circumference

diameter

centre

radius

- 6** A circle has diameter 10 cm  
Circle the radius.

**[1 mark]**

5 cm

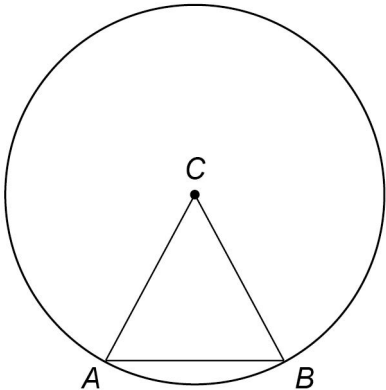
10 cm

20 cm

100 cm

- 7
- $A$  and  $B$  are points on a circle.

$C$  is the centre of the circle.



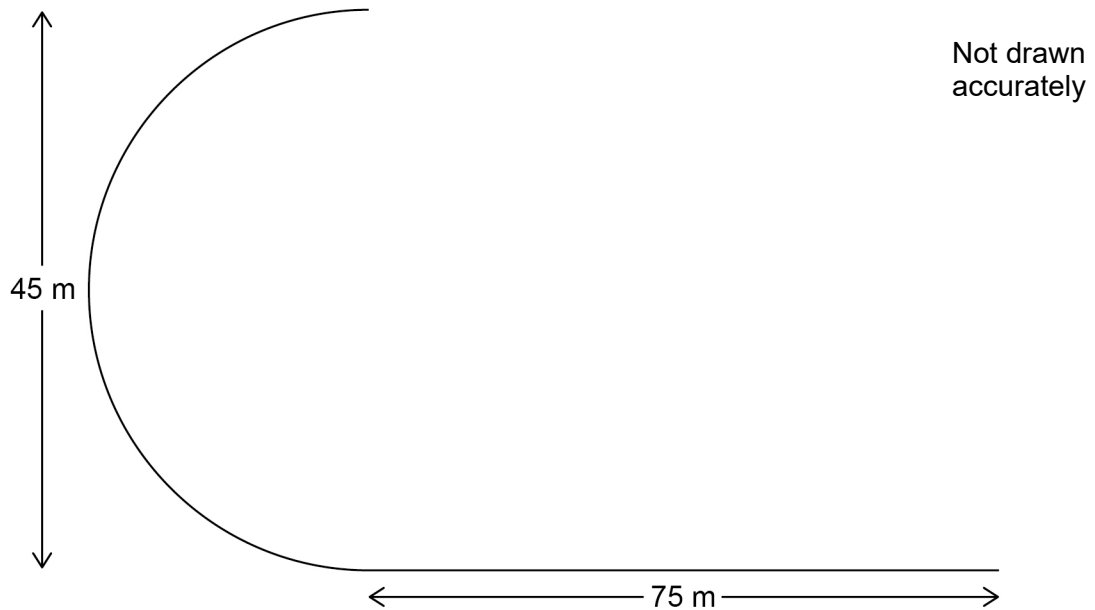
Not drawn  
accurately

Tick **one** box for each statement.

[3 marks]

	Definitely true	Might be true	Cannot be true
Line $AB$ is a tangent to the circle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$AC$ is an arc of the circle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Triangle $ABC$ is equilateral	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 8 Part of a running track is the arc of a semicircle joined to a straight line.  
The semicircle has diameter 45 metres.  
The straight line has length 75 metres.



Abby runs once along this part of the track in 18 seconds.

Work out her average speed.

Give your answer to 2 significant figures.

**[4 marks]**

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Answer \_\_\_\_\_ m/s