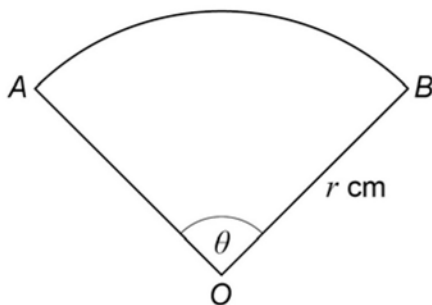


- 5 The diagram shows a sector AOB of a circle with centre O and radius r cm.



The angle AOB is θ radians

The sector has area 9 cm^2 and perimeter 15 cm .

- 5 (a) Show that r satisfies the equation $2r^2 - 15r + 18 = 0$

[4 marks]

- 5 (b) Find the value of θ . Explain why it is the only possible value.

[4 marks]