

# M4 = 35 days to go!

1 A badge is the shape of a quarter circle as shown below.

Calculate the perimeter of the badge.

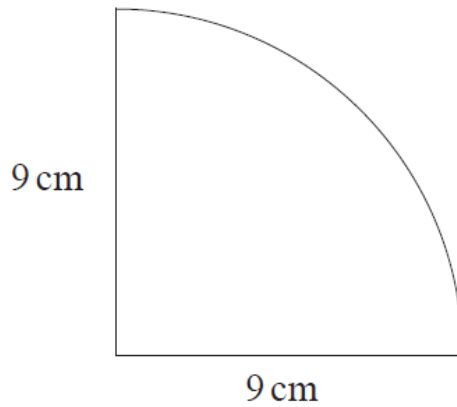


diagram not  
drawn accurately

11 PQR is a right-angled triangle.

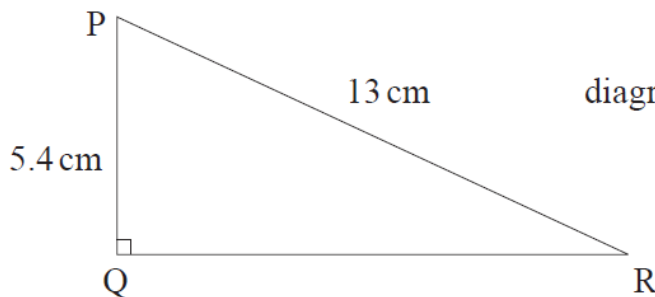


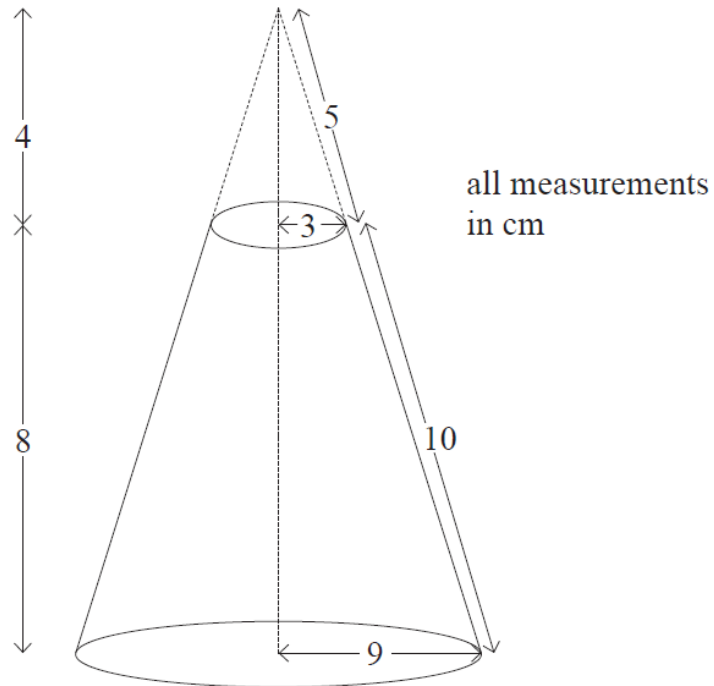
diagram not drawn accurately

By how many degrees is angle P bigger than angle R?

Give your answer to the nearest degree.

**Show all your working clearly.**

- 18 The diagram represents the frustum of a solid cone formed when a small cone is removed from the top of a large cone.



Work out the total surface area of the frustum.

**You must show all your working.**

Answer: \_\_\_\_\_  $\text{cm}^2$  [4]