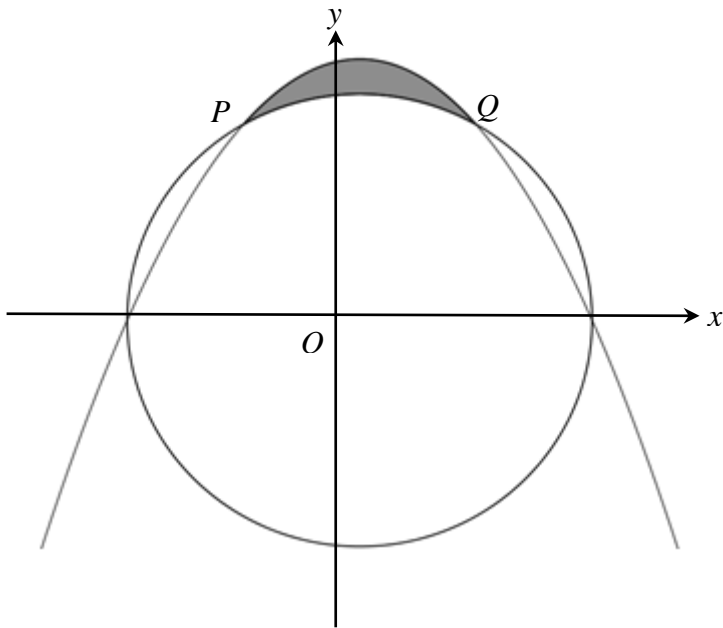


- 5 The diagram shows the circle with centre O and radius 2, and the parabola $y = \frac{1}{\sqrt{3}}(4 - x^2)$.



The circle meets the parabola at points P and Q , as shown in the diagram.

- (a) Verify that the coordinates of Q are $(1, \sqrt{3})$. [3]
- (b) Find the **exact** area of the shaded region enclosed by the arc PQ of the circle and the parabola. [8]