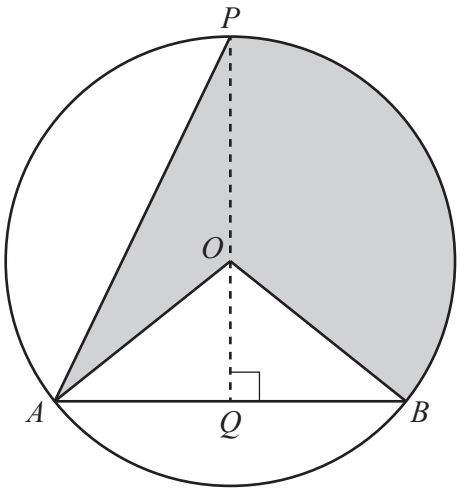
7



The diagram shows a circle, centre O, radius 10 cm. The points A, B and P lie on the circumference of the circle. The chord AB is of length 14 cm. The point Q lies on AB and the line POQ is perpendicular to AB.

(a) Show that angle POA is 2.366 radians, correct to 3 decimal places. [2]

(b) Find the area of the shaded region. [3]

© UCLES 2021

(c) Find the perimeter of the shaded region. [5]