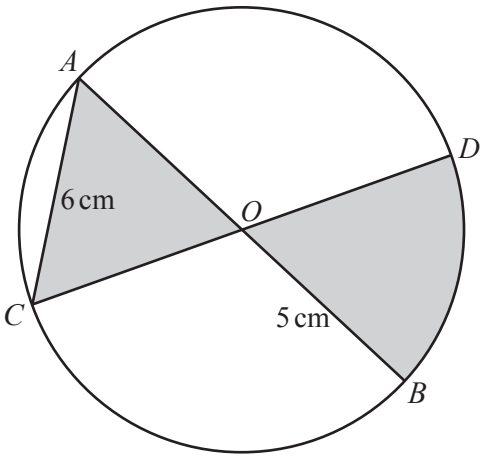
8



The diagram shows a circle, centre O, radius 5 cm. The lines AOB and COD are diameters of this circle. The line AC has length 6 cm.

(a) Show that angle $AOC = 1.287$ radians, correct to 3 decimal places. [2]

(b) Find the perimeter of the shaded region. [2]

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

9 **(a)** Find the coordinates of the stationary points on the curve $y = (2x+1)(x-3)^2$. Give your answers in exact form. [4]