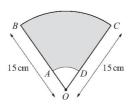
-



The diagram shows a sector of a circle, centre O, where OB = OC = 15 cm. The size of angle BOC is  $\frac{2}{5}\pi$  radians. Points A and D on the lines OB and OC respectively are joined by an arc AD of a circle with centre O. The shaded region is bounded by the arcs AD and BC and by the straight lines AB and DC. It is given that the area of the shaded region is  $\frac{209}{5}\pi$  cm<sup>2</sup>.

Find the perimeter of the shaded region. Give your answer in terms of $\pi$ .	[5]