

The diagram shows a triangle ABC, in which angle $ABC = 90^{\circ}$ and AB = 4 cm. The sector ABD is part of a circle with centre A. The area of the sector is $10 \, \text{cm}^2$.

(a)	Find angle BAD in radians.	[2]
a)		F 43
(D)	Find the perimeter of the shaded region.	[4]