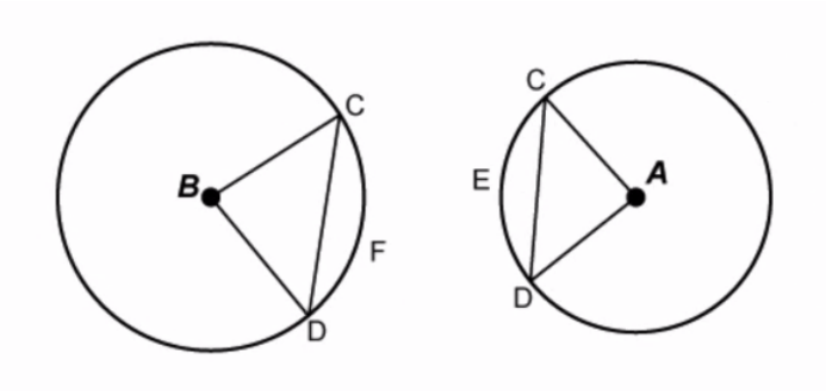
Question 38

Ana Bhattacharjee

August 15, 2019



Of segments CFD and CED, which of the segments has a greater area based on the given information? Justify with your work. Circle A Information:

$r = 10m$, $m\angle CAD = 90°$

Circle B Information:

$r = 12m$, $m\angle CBD = 60°$

The first step is to find the area of $\triangledown CD$ for both $\circ B$ and $\circ A$.

$$A_{\circ B} = \pi(12)^2 = 144\pi \tag{1}$$

$$A_{\triangledown CD_{\circ B}} = \frac{60}{360}A_{\circ B} = \frac{1}{6}144\pi \tag{2}$$

$$A_{\circ A} = \pi(10)^2 = 100\pi \tag{3}$$

$$A_{\triangledown CD_{\circ A}} = \frac{90}{360}A_{\circ A} = \frac{1}{4}100\pi \tag{4}$$

The next step would be to find the area of $\triangledown CBD$ and $\triangledown CAD$.