

questi.

12/10/2018

1. The first part of the question is to find the area of the shaded region in the figure below. The figure shows a circle with center O and radius 10 cm. A chord AB is drawn such that the angle subtended by the chord at the center is 60 degrees. Find the area of the shaded region.

Q.10

Step	Area of Sector OAB	Area of Triangle OAB	Area of Shaded Region
1. Area of Sector OAB	$\frac{60}{360} \times \pi \times 10^2 = \frac{100\pi}{3}$		
2. Area of Triangle OAB		$\frac{1}{2} \times 10 \times 10 \times \sin 60^\circ = 25\sqrt{3}$	
3. Area of Shaded Region			$\frac{100\pi}{3} - 25\sqrt{3}$

Area of Shaded Region

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2. Area of Triangle OAB		$\frac{1}{2} \times 10 \times 10 \times \sin 60^\circ = 25\sqrt{3}$	
3. Area of Shaded Region			$\frac{100\pi}{3} - 25\sqrt{3}$

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Q.11

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