

9.2 - Extra Practice

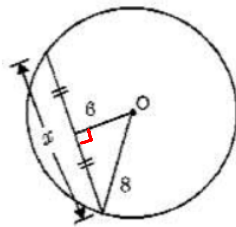
June-02-14
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Math 9 Unit 9 - Circle Geometry Extra Practice

Name: KEY

For each circle given below, determine the values of the indicated side lengths and angles. **Make sure to give reasons for your answers!**

1.



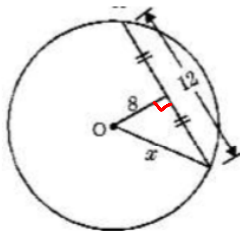
Find the value of x .



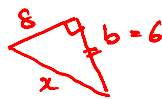
$$b = \sqrt{8^2 - 6^2} = 5.29$$

$$x = 2 \times 5.29 = 10.6$$

2.

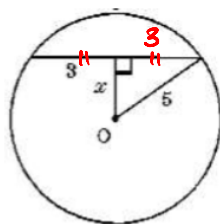


Find the value of x .



$$x = \sqrt{6^2 - 8^2} = 10$$

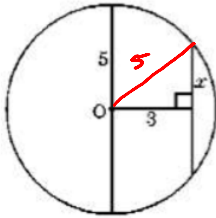
3.



Find the value of x .

$$x = \sqrt{5^2 - 3^2} = 4$$

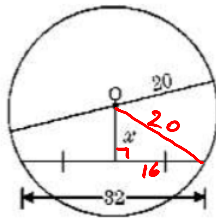
4.



Find the value of x .

$$x = \sqrt{5^2 - 3^2} = 4 //$$

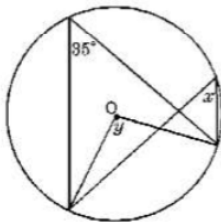
5.



Find the value of x .

$$x = \sqrt{20^2 - 16^2} = 12 //$$

6.

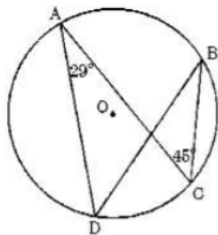


Find the values of angles x , y .

$$x = 35^\circ : \text{Inscribed angle subtended by same arc.}$$

$$y = 70^\circ : \text{Central angle} = 2 \times \text{Inscr. angle.}$$

7.

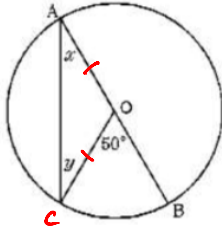


Find the values of $\angle B$, $\angle D$.

$$\angle B = 29^\circ : \text{Inscr. angle subtended by same arc (DC)}$$

$$\angle D = 45^\circ : \text{ " " " " " (AB)}$$

8.

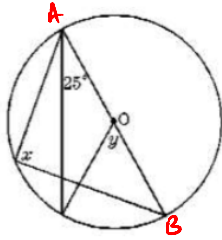


Find the values of angles x , y .

$$x = \frac{1}{2} \times 50 = 25^\circ : \text{Inscr. angle} = \frac{1}{2} \times \text{Central angle.}$$

$$y = x = 25^\circ : \text{Angles in Isosceles Triangle, } \triangle OAC$$

9.

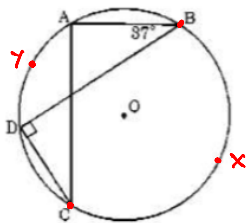


Find the values of angles x , y .

$$x = 90^\circ : \text{Angle subtended by a diameter (AB)}$$

$$y = 25 \times 2 : \text{Central angle} = 2 \times \text{Inscr. angle.} \\ = 50^\circ$$

10.



Find the values of $\angle A$, $\angle C$.

$$\angle A = \angle D = 90^\circ : \text{Angles inscr. by same arc. (CXB)}$$

$$\angle C = \angle B = 37^\circ : \text{Angles inscr. by same arc. (AYD)}$$

