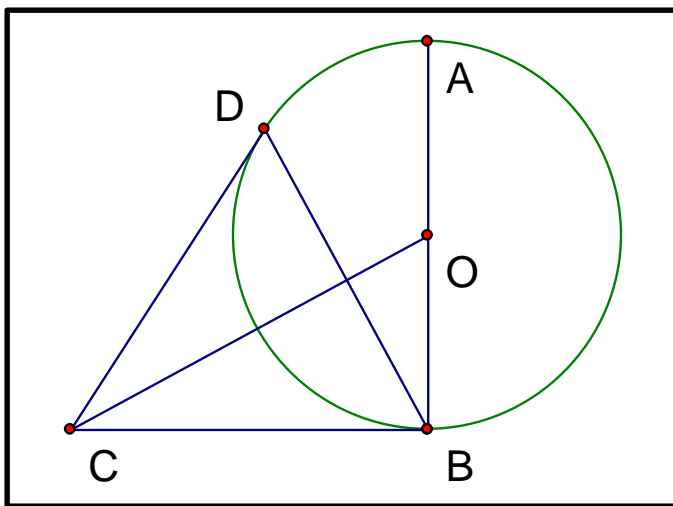


CB and CD are tangent to Circle O at points B and D, respectively. Answer the below questions. Draw the appropriate triangle for each problem and then show all work.



1) If $OC = 15$ and $OB = 9$, then $BC =$ _____ .

4) If $m\angle COB = 60$ and $CB = 6\sqrt{3}$, then $AB =$ _____ .

2) If $AB = 12$ and $BC = 8$, then $OC =$ _____ .

5) If $m\angle OCB = 30$ and $OB = 4$, then $OC =$ _____ .

3) If $OC = 2\sqrt{17}$ and $BC = 5\sqrt{2}$, then $AB =$ _____ .

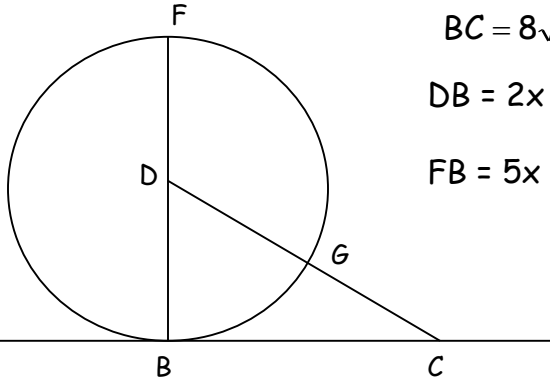
6) If $m\angle BCD = 70$, then $\angle CBD \cong \angle$ _____ and $m\angle CBD =$ _____ $^\circ$.

Geometry/Trig

9-2 Homework

Directions: Find the value of each indicated variable and measure.

7. AC is a tangent of Circle D.



$$BC = 8\sqrt{3}$$

$$DB = 2x + 2$$

$$FB = 5x + 1$$

$$x = \underline{\hspace{2cm}}$$

$$DB = \underline{\hspace{2cm}}$$

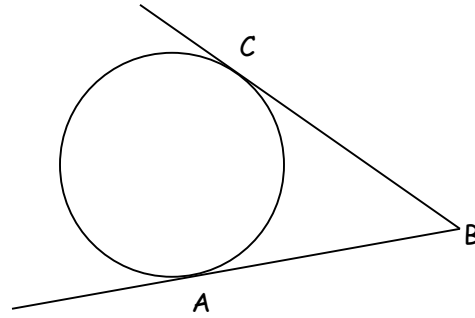
$$FB = \underline{\hspace{2cm}}$$

$$m\angle DCB = \underline{\hspace{2cm}}$$

$$DC = \underline{\hspace{2cm}}$$

$$GC = \underline{\hspace{2cm}}$$

8. BC and AB are tangents to the circle.



$$AB = 4x + 8$$

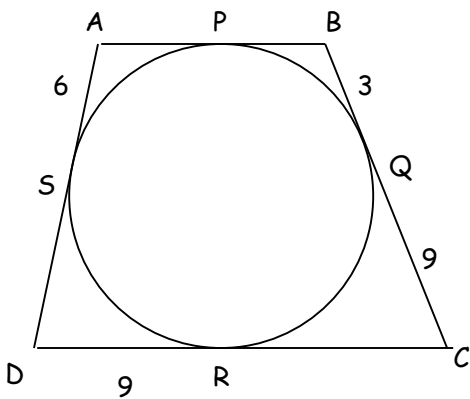
$$CB = 7x + 2$$

$$x = \underline{\hspace{2cm}}$$

$$AB = \underline{\hspace{2cm}}$$

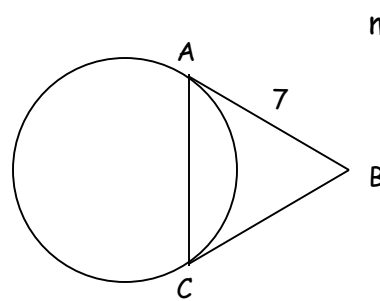
$$BC = \underline{\hspace{2cm}}$$

9. P, Q, R, and S are points of tangency.



Find the perimeter of Quadrilateral ABCD.

10. AB and BC are tangent segments.



$$m\angle BAC = 71$$

$$BC = \underline{\hspace{2cm}}$$

$$m\angle ABC = \underline{\hspace{2cm}}$$