

Circle Properties

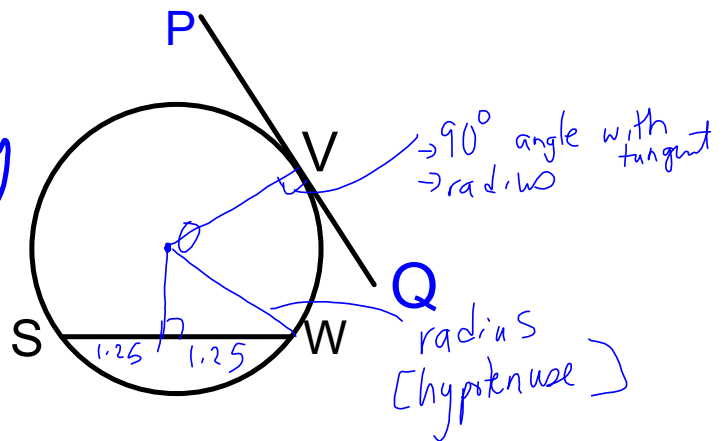
A line that intersects a circle at only **ONE POINT** is a **tangent** to the circle

The point where the tangent intersects the circle is the **point of tangency**.

Point V - point of tangency

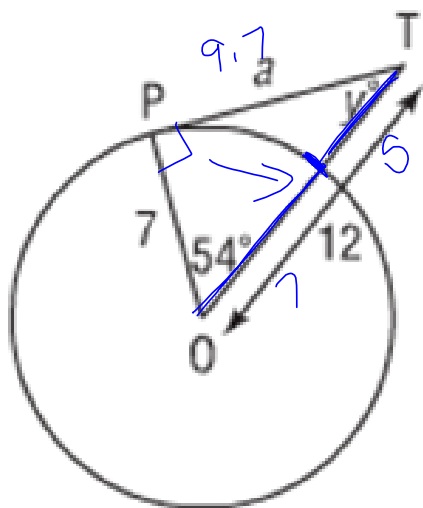
SW → chord

PQ → tangent
[outside circle]



Circle Properties

$$c^2 = a^2 + b^2$$

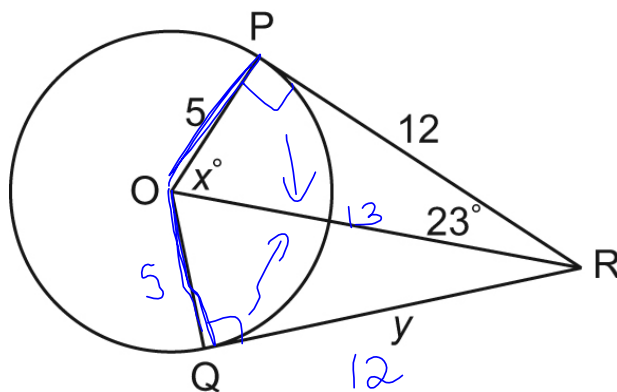


Solve for $\angle PTO = 36^\circ$

Solve for **a**

$$\begin{aligned} a^2 &= c^2 - b^2 \\ &= 12^2 - 5^2 \\ &= 144 - 49 \\ a^2 &= 95 \\ a &= 9.7 \end{aligned}$$

Solve for x° and y



Use 3 Letters to name the angle

$$\angle \underline{PDR} = 67^\circ$$

Find OP

$$c^2 = a^2 + b^2$$

$$c^2 = 12^2 + 5^2$$

$$c^2 = 144 + 25$$

$$c^2 = 169$$

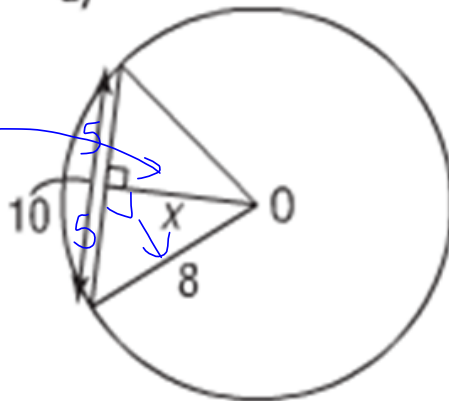
$$c = 13$$

Solve for x:

A line segment that joins two points on a circle is a **CHORD**.

a)

distance from center to the chord is perpendicular bisector



$$a^2 = c^2 - b^2$$

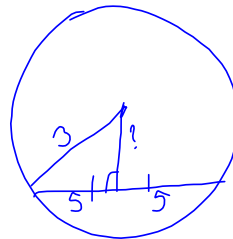
$$a^2 = 8^2 - 5^2$$

$$a^2 = 64 - 25$$

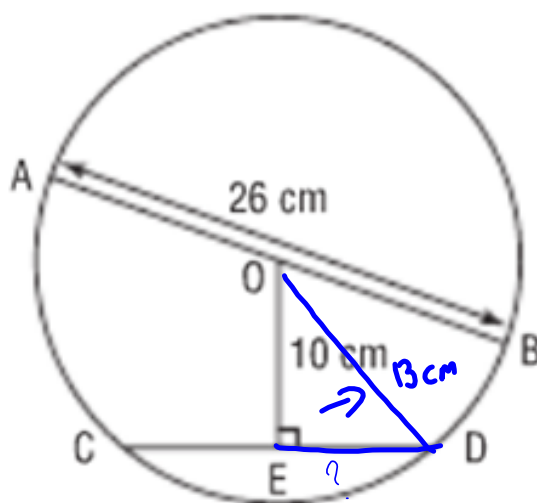
$$a^2 = 39$$

$$a = 6.2$$

Draw a diagram with a chord of 10 cm a diameter of 6 cm and find the distance from the center to chord.



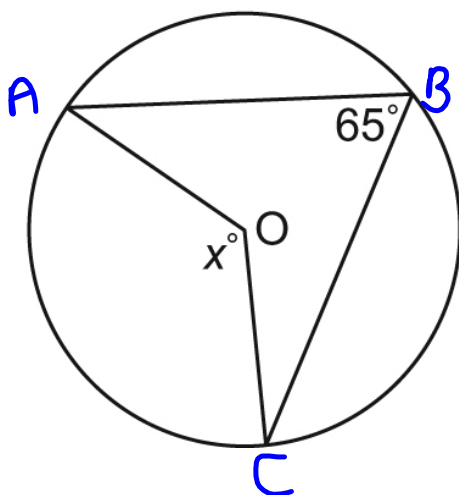
Solve for ED



$$\begin{aligned} \Sigma D \\ a^2 &= c^2 - b^2 \\ a^2 &= 13^2 - 10^2 \\ a^2 &= 169 - 100 \\ \sqrt{a^2} &= \sqrt{69} \\ a &= 8.3 \end{aligned}$$

Inscribed Angles

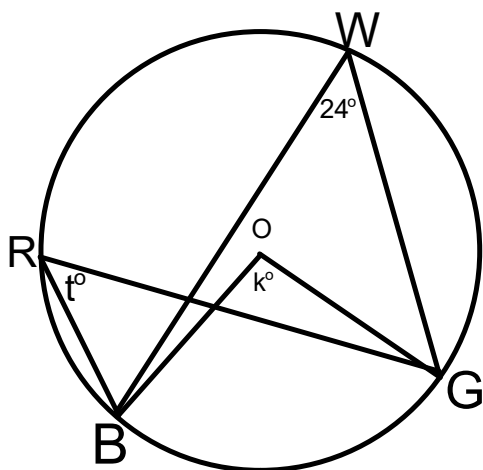
[The inscribed angle is half the size of the central angle]



Know	Need
$\angle ABC = 65^\circ$	$\angle AOC = 130^\circ$

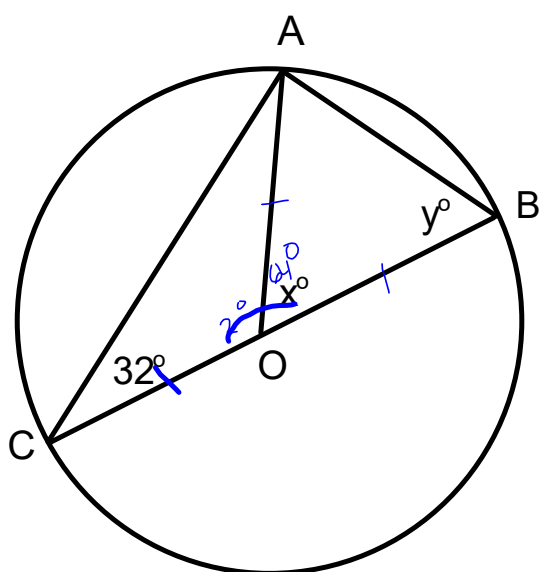
Inscribed Angles Property

In a circle, all of the inscribed angles subtended by the same arc are congruent [equal]



Know	Need
$\angle BWG = 24^\circ$	$\angle BRG = 24^\circ$
	$\angle BOG = 48^\circ$

Angles in a Semicircle Property



KNOW	Need
$\angle ACB = 32^\circ$	$\angle AOB = 64^\circ$
	$\angle ABC = 58^\circ$
	$\angle AOC = 116^\circ$

*Finish Chapter 7 Review...23-31

* Finish Chapter 8 Review.

* Extra Review...Chapter 4, 6, 7, 8 End O
Chapter Review.