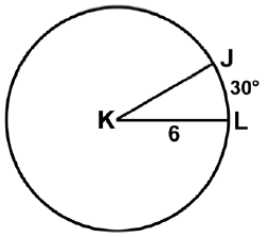
Stations Day 4

Circles Station #1: Area, Circumference of Circles

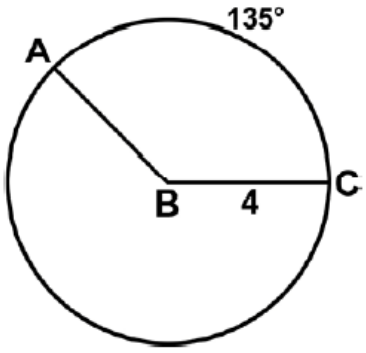
1. Find the area and circumference of a circle with a radius of 5.

7. Find the area and circumference of a circle with a diameter of 26.

17. K is the center of the circle shown. Find the area of sector JKL and the length of $\overset{\frown}{JL}$.

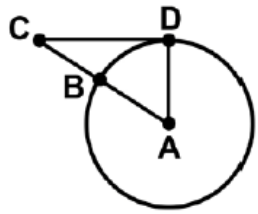


19. B is the center of the circle shown. Find the area of sector ABC and the length of $\overset{\frown}{AC}$.

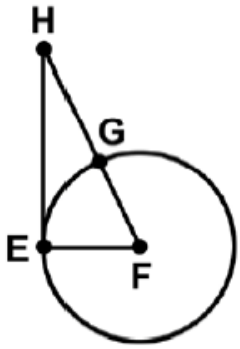


Circles Station #2: Tangents

1. In the diagram shown, $\overleftrightarrow{CD}$ is tangent to $\odot A$. If AB = 3 and BC = 2, find CD.

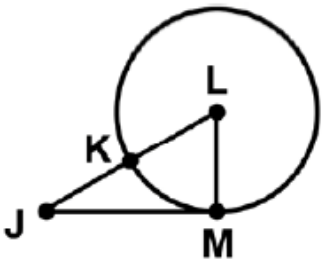


3. In the diagram shown, $\overleftrightarrow{HE}$ is tangent to $\odot F$. If FG = 3 and GH = 4, find EH.



Hint: Use SOH CAH TOA!

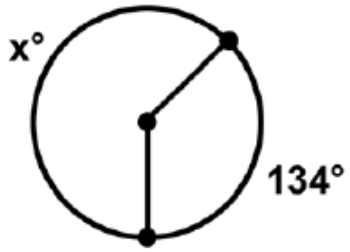
5. In the diagram shown, $\overleftrightarrow{JM}$ is tangent to $\odot L$. If $m\angle J = 30°$ and KL = 5, find JL and JM.



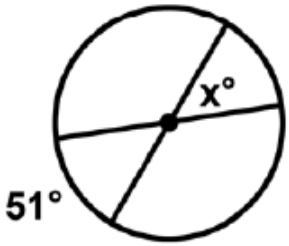
Circles Station #3: Arcs and Central Angles

3. Using the diagrams shown, find the value of x.

a.

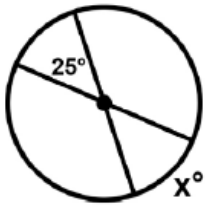


b.

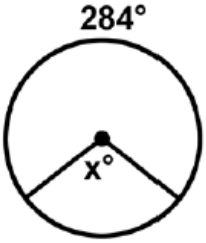


4. Using the diagrams shown, find the value of x.

a.



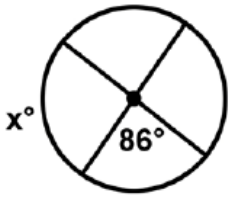
b.



5. Using the diagrams shown, find the value of x.

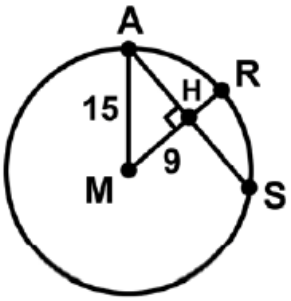
a.

b.

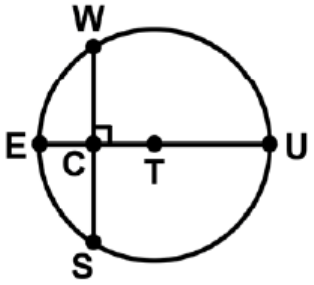


Circles Station #4: Arcs and Chords

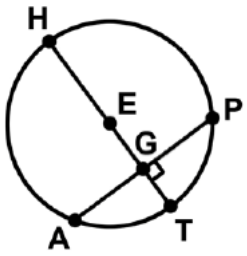
3. Using ⊙M, shown below, find AS.



5. In ⊙T, shown below, if TC = 4 and WS = 14, find TU.



7. In ⊙E, shown below, if HE = 11 and GT = 2, find PA.

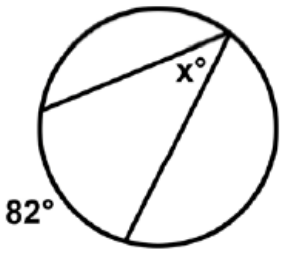


8. Find the length of the radius of a circle, if a chord of the circle has a length of 48 cm and is 10 cm from the center of the circle.

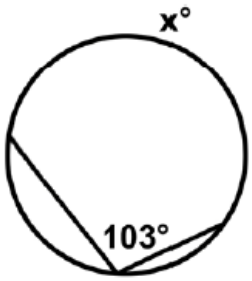
Circles Station #5: Angles in Circles

1. Using each circle shown, find the value of x.

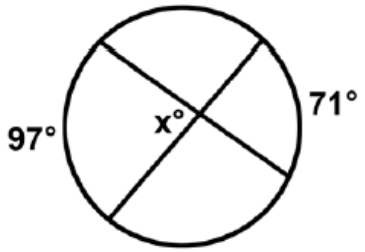
a.



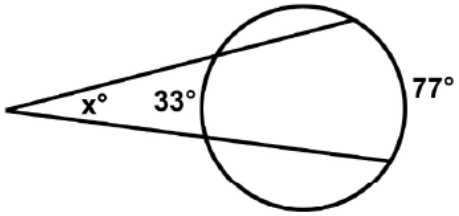
b.



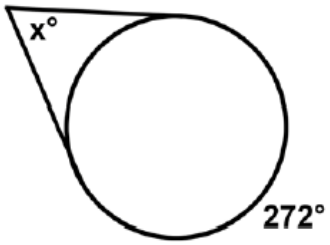
2.



3.



5.



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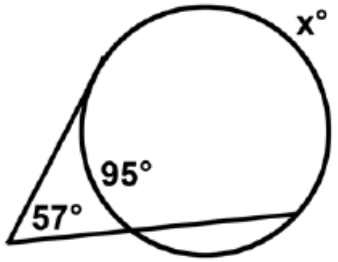
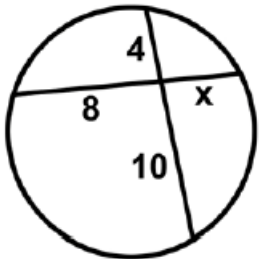


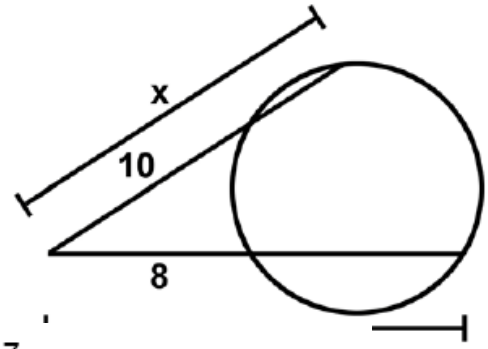
Circles Station #6: Segments in Circles

Using each circle shown, find the value of x.

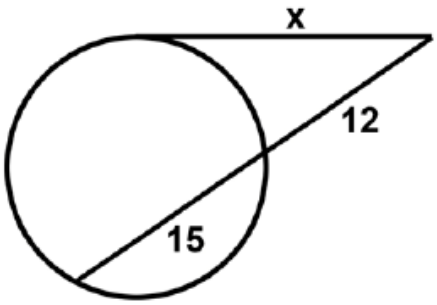
1.



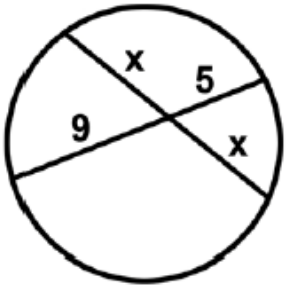
3.



5.



7.



Circles STATION # 7 - Equations of Circles

3) $x^2 + y^2 + 14x - 12y + 4 = 0$

4) $y^2 + 2x + x^2 = 24y - 120$

5) $x^2 + 2x + y^2 = 55 + 10y$

6) $8x + 32y + y^2 = -263 - x^2$

7) Center: $(-11, -8)$
Radius: 4

8) Center: $(-6, -15)$
Radius: $\sqrt{5}$

9) $(x - 16)^2 + (y - 6)^2 = 1$
Translated 4 left, 2 up

10) $(x + 5)^2 + (y + 7)^2 = 36$
Translated 5 left, 4 down