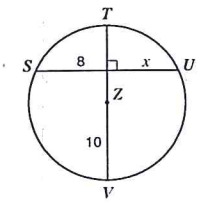
9-5 SOL Questions on Circles

Name: _____ Time› Start: _____ Finish: _____ Total Time = _____

1.

$\overline{TV}$ is a diameter of circle Z.

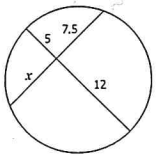


What is the value of x?

A 4
B 6
C 8
D 10

2.

Two chords intersect with the measures shown in the drawing.

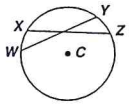


What is the value of x ?

F 8.0
G 9.5
H 10.0
J 14.5

③

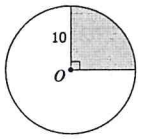
In circle C, m$\overset{\frown}{WX}$ = 25°, m$\overset{\frown}{XY}$ = 40°, m$\overset{\frown}{YZ}$ = 25°, and WY = 24 centimeters.



What is the length of $\overline{XZ}$?

F 12 cm
G 24 cm
H 25 cm
J 65 cm

4.

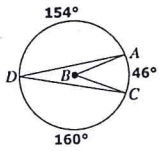


The area of the *shaded* sector of circle O is —

F 5π
G 20π
H 25π
J 50π

5.

Given: $\odot B$.

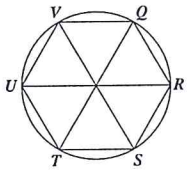


What is the $m\angle ADC$?

F 23°
G 46°
H 77°
J 80°

6.

In the design, a hexagon is inscribed in a circle.

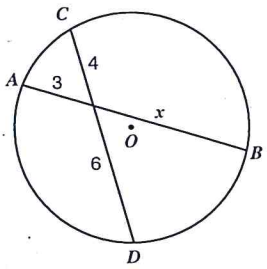


Which point shows the location of Point Q after a 240° clockwise rotation around the center?

F S
G T
H U
J V

7.

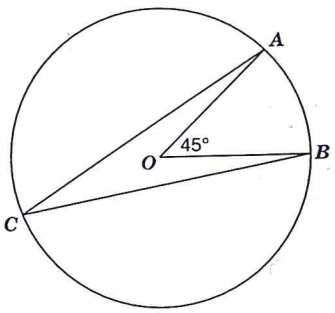
Chords $\overline{AB}$ and $\overline{CD}$ intersect, forming segments with the measures shown.



What is the value of x?

F 5
G 8
H 10
J 24

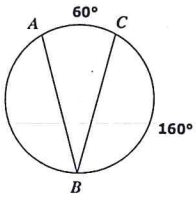
8.



If m$\angle AOB$ = 45° in circle O, what is m$\angle ACB$?

A 22.5°
B 45°
C 67.5°
D 90°

9.

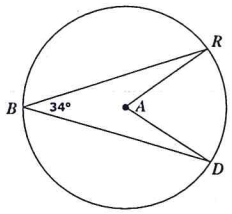


In the circle, what is the measure of $\angle ABC$?

F 30°
G 60°
H 120°
J 140°

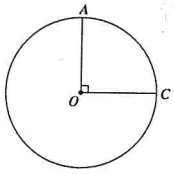
10.

What is $m\angle DAR$ in circle A ?



A 17°
B 34°
C 56°
D 68°

11.



In circle O, the degree measure of $\overset{\frown}{AC}$ is —

F 45°
G 90°
H 135°
J 180°

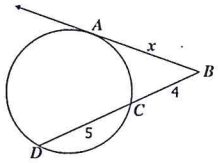
12.

A pizza has a diameter of 16 inches. Which is closest to the area of one slice if the pizza is divided into 6 equal pieces?

A 134.1 sq in.
B 117.1 sq in.
C 67.2 sq in.
D 33.5 sq in.

13.

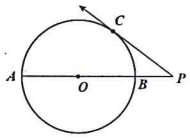
In the diagram, $\overline{AB}$ is tangent to the circle at point A, and $\overline{BD}$ intersects the circle at points C and D.



What is the value of x ?

F 3
G 4
H 5
J 6

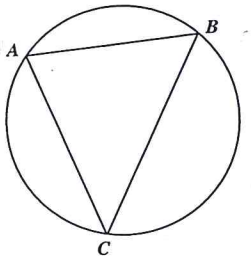
14.



If $AP = 8$ and $PC = 4$, what is the measure of $\overline{AB}$, the *diameter* of this circle?

F 2
G 4
H 6
J 8

15.

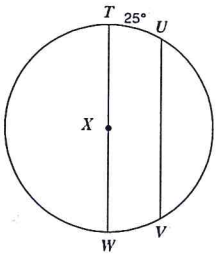


The sum of $m\overset{\frown}{AB}$ and $m\overset{\frown}{BC}$ is equal to —

A $360° - m\overset{\frown}{AC}$
B $240° - m\overset{\frown}{AC}$
C $180° - m\overset{\frown}{AC}$
D 120°

16.

$\overline{TW}$ is a diameter of circle X, and $\overline{TW}$ is parallel to $\overline{UV}$.



If the measure of $\overset{\frown}{TU}$ is 25°, what is the degree measure of $\overline{UV}$?

A 115°
B 130°
C 155°
D 210°