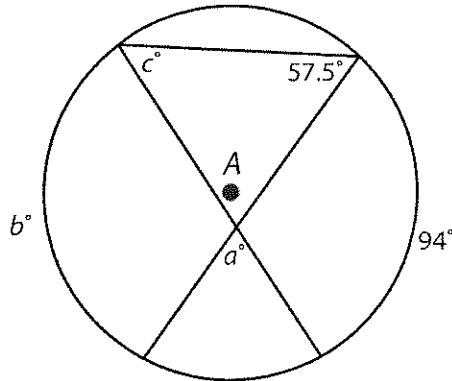


Review

Pre-Assessment

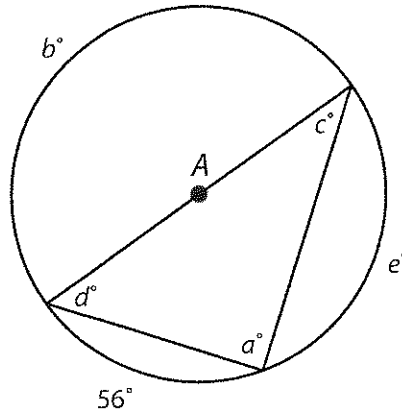
Circle the letter of the best answer.

1. Find the value of each variable.



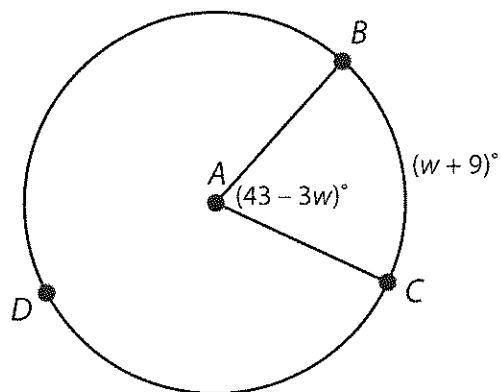
- a. $a = 75.5^\circ$, $b = 115^\circ$, and $c = 47^\circ$ c. $a = 32.5^\circ$, $b = 57.5^\circ$, and $c = 94^\circ$
 b. $a = 57.5^\circ$, $b = 94^\circ$, and $c = 32.5^\circ$ d. $a = 75.5^\circ$, $b = 55.5^\circ$, and $c = 94^\circ$

2. Find the value of each variable.



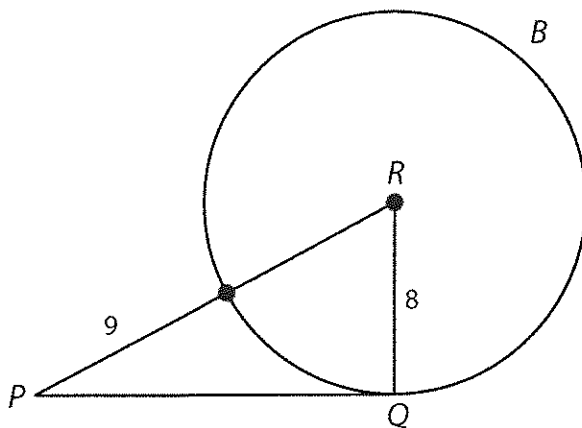
- a. $a = 180^\circ$, $b = 180^\circ$, $c = 56^\circ$, $d = 90^\circ$, and $e = 90^\circ$
 b. $a = 90^\circ$, $b = 90^\circ$, $c = 56^\circ$, $d = 62^\circ$, and $e = 62^\circ$
 c. $a = 90^\circ$, $b = 180^\circ$, $c = 28^\circ$, $d = 62^\circ$, and $e = 124^\circ$
 d. $a = 80^\circ$, $b = 90^\circ$, $c = 28^\circ$, $d = 124^\circ$, and $e = 124^\circ$

3. What is the value of w ?



- a. 7.5
b. 8.5
c. 9.5
d. 10.5

4. \overline{PQ} is tangent to circle R at point Q in the diagram below. What is the length of \overline{PQ} to the nearest whole number?



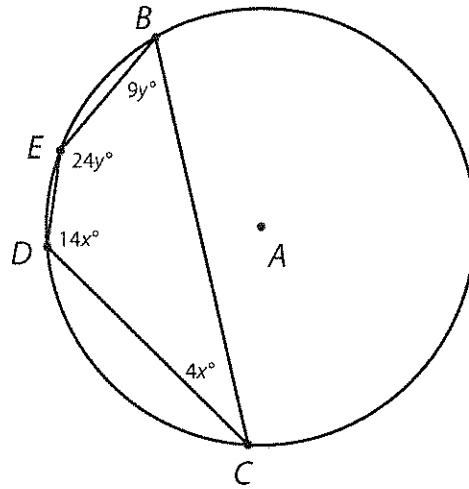
- a. 4 units
b. 10 units
c. 12 units
d. 15 units

5. \overline{XY} is tangent to circle Z at point Y . The slope of \overline{XY} is $-\frac{1}{2}$. What is the slope of radius \overline{ZY} ?

- a. $\frac{1}{2}$
b. 2
c. $-\frac{1}{2}$
d. -2

4. If a quadrilateral is inscribed in a circle, what must be true of the quadrilateral's opposite angles?
- They must be complementary.
 - They must be congruent.
 - They must be supplementary.
 - They have no relationship.

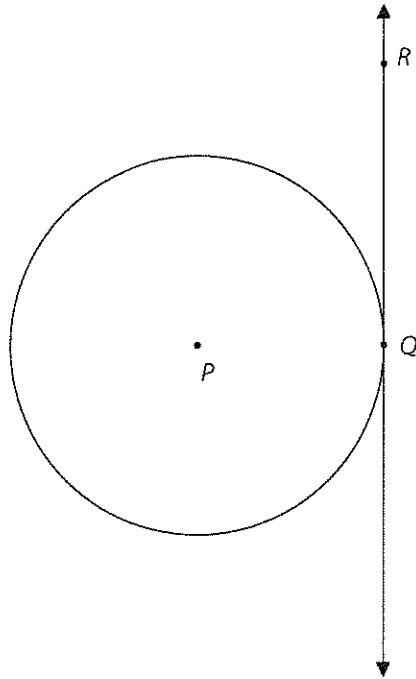
5. Find the value of x .



- 6
- 9
- 36
- 54

1. To construct a line tangent to circle O at point B , what must be true about \overleftrightarrow{BC} and radius \overline{OB} ?
 - a. \overleftrightarrow{BC} intersects \overline{OB} at point O .
 - b. \overleftrightarrow{BC} is perpendicular to \overline{OB} at point B .
 - c. \overleftrightarrow{BC} is parallel to \overline{OB} at point B .
 - d. \overleftrightarrow{BC} is congruent to \overline{OB} .

2. \overline{RQ} is tangent to circle P , as shown below. Which is NOT a step in the process for constructing the tangent?



- a. Draw a straight line from center P through point Q and beyond Q .
- b. Put the compass on point Q and set it to a width less than the distance of \overline{PQ} .
- c. Use a protractor to measure a 90° angle at point Q .
- d. Draw an arc on either side of point Q .

1. Convert 45° to radians.

a. $\frac{1}{4}$

c. 4

b. $\frac{\pi}{4}$

d. 4π

2. Convert $\frac{2\pi}{3}$ radians to degrees.

a. 60°

c. 120°

b. 90°

d. 270°

3. A circle has a radius of 3 units. Find the radian measure of a central angle that intercepts an arc length of 12 units.

a. 36 radians

c. 4π radians

b. 8π radians

d. 4 radians

4. A circle has a radius of 5 units. Find the length of the arc intercepted by a central angle measuring $\frac{1}{5}$ radian.

a. $\frac{1}{5}$ unit

c. 5 units

b. 1 unit

d. 25 units

5. A circle has a radius of 12 units. Find the area of a sector with a central angle of 20° .

a. 1,440 square units

c. 8π square units

b. 16π square units

d. $\frac{36\pi}{5}$ square units

1. What is the area of a circle that has a circumference of 50 meters?
 - a. $\approx 198.94 \text{ m}^2$
 - b. $\approx 625 \text{ m}^2$
 - c. $\approx 1350 \text{ m}^2$
 - d. $\approx 7853.982 \text{ m}^2$

2. What is the volume of a cylinder that has a radius of 20 cm and a height of 30 cm?
 - a. $\approx 37,699.112 \text{ cm}^3$
 - b. $\approx 12,000 \text{ cm}^3$
 - c. $\approx 1884.956 \text{ cm}^3$
 - d. $\approx 12,566.371 \text{ cm}^3$

3. What is the volume of a square pyramid that has a side length of 100 meters and a height of 50 meters?
 - a. $\approx 5000 \text{ m}^3$
 - b. $\approx 500,000 \text{ m}^3$
 - c. $\approx 166,667 \text{ m}^3$
 - d. $\approx 83,333 \text{ m}^3$

4. What is the volume of a cone that has a circumference of 50 meters and a height of 30 meters?
 - a. $\approx 633.26 \text{ m}^3$
 - b. $\approx 500 \text{ m}^3$
 - c. $\approx 1989.44 \text{ m}^3$
 - d. $\approx 25,000 \text{ m}^3$

5. A golf ball has a diameter of 1.68 in. What is the volume of the golf ball?
 - a. 11.82 in^3
 - b. 2.96 in^3
 - c. 7.04 in^3
 - d. 3.52 in^3