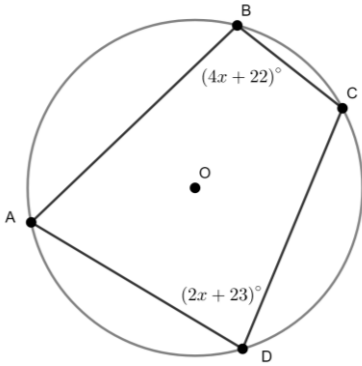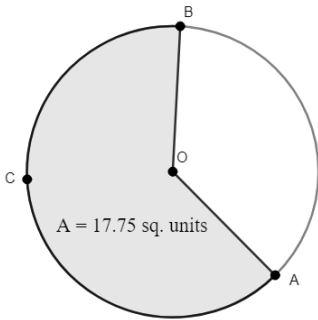# Circles

1. Quadrilateral $ABCD$ is inscribed in circle O.
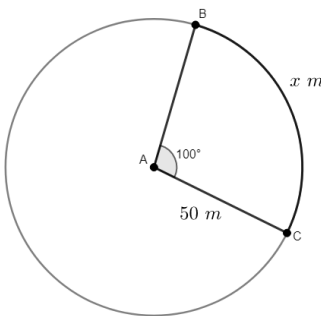
What is the measure of $\angle B$?

A. $24°$

B. $68°$

C. $90°$

D. $112°$

2. The shaded area of circle O below represents a $226°$ sector with area of 17.75 square units. What is the radius of circle O? Round your answer to the nearest whole unit.

A. 2

B. 3

C. 4

D. 9

3. A farm uses an irrigation system to water crops in a circular pattern, as shown in the diagram below. The rotating arm is 50 meters in length.

As the arm rotates through an angle of $100°$, it forms a circular arc. What is the length, in meters, of the arc?

A. 43.6

B. 87.3

C. 157.1

D. 314.2

4. The points $(-5, 0)$ and $(1, 8)$ are the endpoints of a diameter of a circle. What is the standard equation of the circle?

A. $(x - 2)^2 + (y + 4)^2 = 25$

B. $(x + 2)^2 + (y - 4)^2 = 100$

C. $(x + 2)^2 + (y - 4)^2 = 25$

D. $(x - 2)^2 + (y + 4)^2 = 100$

Circles

5. On a coordinate plane, circle O has its center at the point $(3, -6)$. The point $P(-1, \ -2)$ is on circle O. Which of these statements are correct? Choose All that are correct.
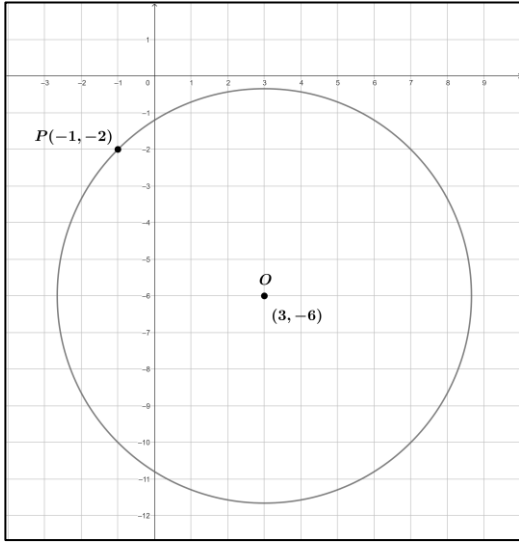
A. The equation of the circle is $(x - 3)^2 + (y + 6)^2 = 32$.

B. The radius of the circle is $4\sqrt{2}$.

C. The range of the circle is $(-6 - 4\sqrt{2}) \le y \le (-6 + 4\sqrt{2})$

D. The line $y = x - 1$ is tangent to circle O at P.

E. The point $(4, -0.5)$ is on the circle.

F. The area of the circle is 32π square units.