

Ellipses and Circles Exit Quiz

Part A Instructions: Choose the option that completes the sentence or answers the question.

1. The equation $\frac{(x-h)^2}{a^2} + \frac{(y-k)^2}{b^2} = 1$ represents a/an:
 - a. Vertical ellipse
 - b. Horizontal ellipse
 - c. Circle
 - d. Parabola

2. For a horizontal ellipse, foci are given as:
 - a. $(h \pm c, k)$
 - b. $(h, k \pm c)$
 - c. $(h \pm a, k)$
 - d. $(h, k \pm a)$

3. For a horizontal ellipse, co-vertices are given as:
 - a. $(h \pm b, k)$
 - b. $(h, k \pm b)$
 - c. $(h \pm a, k)$
 - d. $(h, k \pm a)$

4. For a circle, if the radius is doubled, the diameter is:
 - a. halved
 - b. doubled
 - c. quadrupled
 - d. None of these

Part B Instructions: Answer the question below.

5. Write an equation for a circle with center $(-1, 6)$ and diameter 6.

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Answers

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Part B Instructions: Answer the question below.

5. Write an equation for a circle with center $(-1, 6)$ and diameter 6.

The equation of circle is,

$$(x - h)^2 + (y - k)^2 = r^2$$

$$\text{Here } h = -1, k = 6 ; r = \frac{d}{2} = \frac{6}{2} = 3$$

$$\rightarrow (x + 1)^2 + (y - 6)^2 = 9$$