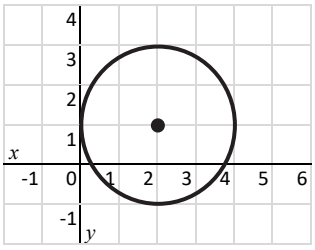
LESSON 140 Review Quiz

Take the quiz and record your score on your grading sheet. You may use a calculator unless otherwise specified. After the quiz, make sure you review what you missed.

1. What is the distance between $(-2, 3)$ and $(4, 9)$? Write your answer in simplest radical form.

2. What is the midpoint between $(4, -3)$ and $(-2, 7)$?

3. Which equation is graphed below?



A) $(x + 2)^2 + (y + 1)^2 = 2$

B) $(x - 2)^2 + (y - 1)^2 = 2$

C) $(x + 2)^2 + (y + 1)^2 = 4$

D) $(x - 2)^2 + (y - 1)^2 = 4$

4. If $(x - h)^2 + (y - k)^2 = r^2$ represents a circle with diameter endpoints $(2, -1)$ and $(-4, -3)$, what is the value of hkr ?

5. $x^2 + y^2 - 6x + 4y - 3 = 0$

What is the radius of the circle defined by the equation above?

6. Which statement is true about a parabola with focus $(4, 0)$ and directrix $x = 0$? Select all that apply.

A) The parabola opens left.

B) The vertex is $(2, 0)$.

C) The axis of symmetry is $x = 2$.

D) $(4, 4)$ is on the parabola.

7. If $y = a(x - h)^2 + k$ represents a parabola whose focus is $(0, 1)$ and directrix is $y = -1$, what is the value of a ?

8. $(x - 2)^2 + y^2 = 5$

$y = x - 1$

Solve the system above.

9. $y = x^2 - x - 2$

$x - y = 3$

Solve the system above.

10. $y = (x + 1)^2 + k$

$y = 2x + 3$

For what value or values of k do the graphs of the equations above intersect at exactly one point?