Student: _____ **Date:** _____ **Time:** _____	**Instructor:** Fred Khoury **Course:** Math 2312-1000 Precalculus (Fall - 2015) **Book:** Lial: College Algebra and Trigonometry, 4e	**Assignment:** Quiz Sec 4.5

1. Find the center and radius of the circle.

$x^2 + y^2 + 4x + 16y + 59 = 0$

A. The center is (2,8). The radius is 9.

B. The center is $(-2, -8)$. The radius is 3.

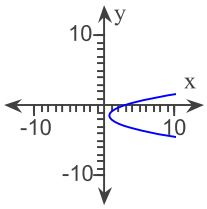
C. The center is $(-8, -2)$. The radius is 3.

D. The center is (8,2). The radius is 9.

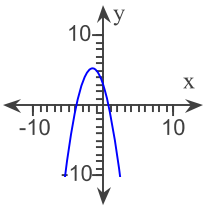
2. Graph the parabola.

$x = y^2 - 3y + 3$

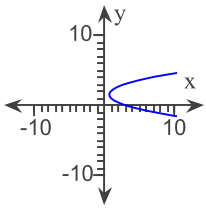
A.



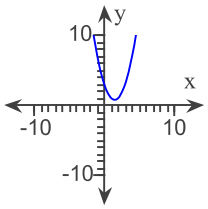
B.



C.



D.



3. Give the focus, directrix, and axis of symmetry, respectively, for the parabola.

$(x + 5)^2 = 28y$

A. (5,7), $y = 7$, $x = 5$

B. $(-5,7)$, $y = -7$, $x = -5$

C. $(-5, -7)$, $y = -7$, $x = -5$

D. $(-5,0)$, $y = 7$, $x = -5$

4. Give the focus, directrix, and axis of symmetry, respectively, for the parabola.

$(y - 6)^2 = -16(x + 4)$

A. $(-8,2)$, $x = 0$, $y = 6$

B. $(-8,6)$, $x = 0$, $y = -4$

C. $(-8,6)$, $x = 0$, $y = 6$

D. $(-8,6)$, $x = -4$, $y = 6$

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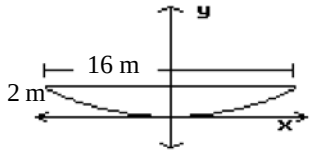
5. Write an equation for the parabola with vertex (9,8) and focus (9,10).

- A. $(y-8)^2 = 8(x-9)$
- B. $2(y-8) = (x-9)^2$
- C. $y-8 = 8(x-9)^2$
- D. $8(y-8) = (x-9)^2$

6. A radio telescope has a parabolic surface. If it is 2 m deep and 16 m wide, how far is the focus from the vertex?



- A. 4 m
- B. 32 m
- C. 8 m
- D. 2 m