

**Conic Sections: Parabolas**

11 Questions

NAME : _____

CLASS : _____

DATE : _____

1. What is the coordinate of the vertex? $(x+3)^2 = 4(y+5)$

☐ a) (-3, -5)☐ b) (-5,-3)☐ c) (3, 5)☐ d) (5, 3)

2. The focus is always outside the parabola

☐ a) True☐ b) False

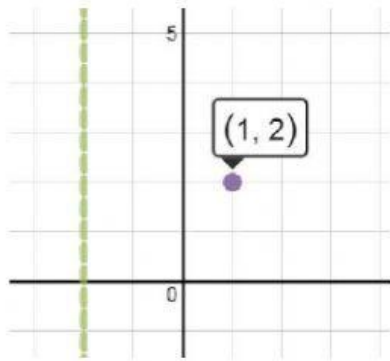
3. All parabolas with a horizontal directrix open the up or down.

☐ a) false☐ b) true

4. The focus is at (2,0) and the vertex is at (-4,0). What is the equation of the parabola?

☐ a) $y^2 = 24(x+4)$ ☐ b) $(x+4)^2 = -20y$ ☐ c) $x^2 = 16(y+4)$ ☐ d) $(y+4)^2 = -12x$

5.



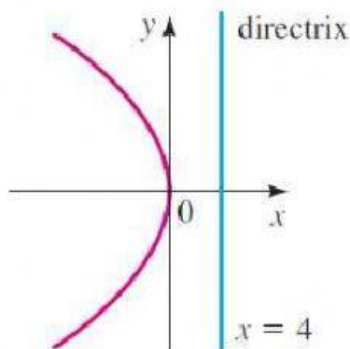
Given this **directrix** and **vertex**, what would the equation of the parabola be?

- ☐ a) $(x-1)^2 = 6(y-2)$ ☐ b) $(y-2)^2 = 12(x-1)$
- ☐ c) $(x-1)^2 = 12(y-2)$ ☐ d) $(y-2)^2 = 6(x-1)$

6. **True or False?** When the y-part is squared, the parabola opens up or down.

- ☐ a) True ☐ b) False

7.



What is the equation of this parabola?

- ☐ a) $x^2 = -y$ ☐ b) $y^2 = x$
- ☐ c) $x^2 = 4y$ ☐ d) $y^2 = -16x$

8. What is the VERTEX of the parabola: $\frac{1}{2}(y - 4) = (x - 3)^2$

- ☐ a) (-3, -4) ☐ b) (3, -4)
- ☐ c) (3, 4) ☐ d) (4, 3)

9. A parabola is the set of all points equidistant from the focus and the directrix.

☐ a) false

☐ b) true

10. $(x - 5)^2 = 4(y - 11)$ What is the p value?

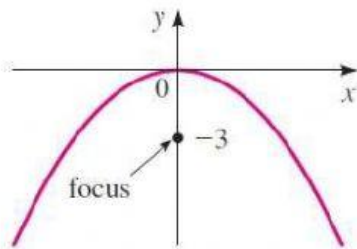
☐ a) 10

☐ b) 4

☐ c) 1

☐ d) 40

11.



What is the equation of this parabola?

☐ a) $x^2 = -12y$

☐ b) $x^2 = -3y$

☐ c) $y^2 = 12x$

☐ d) $y^2 = 3x$