

**Conic Sections: Parabolas**

11 Questions

NAME : _____

CLASS : _____

DATE : _____

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

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

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

☐ a) true☐ b) false

3. All parabolas with a vertical directrix open the left or right.

☐ a) true☐ b) false

4. **True or False?**

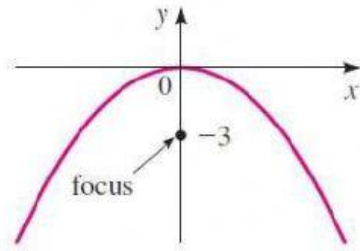
When the x-part is squared, the parabola opens up or down.

☐ a) True☐ b) False

5. 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) $(y+4)^2 = -12x$ ☐ c) $x^2 = 16(y+4)$ ☐ d) $(x+4)^2 = -20y$

6.



What is the equation of this parabola?

☐ a) $x^2 = -3y$

☐ b) $y^2 = 12x$

☐ c) $x^2 = -12y$

☐ d) $y^2 = 3x$

7. $(x - 5)^2 = 40(y - 11)$ What is the p value?

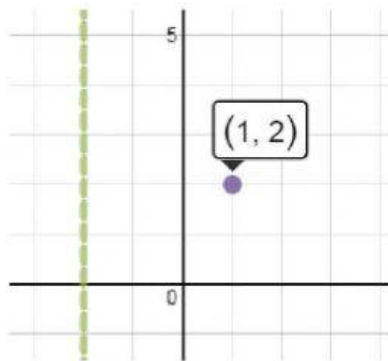
☐ a) 40

☐ b) 4

☐ c) 10

☐ d) 1

8.

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

☐ a) $(y-2)^2 = 12(x-1)$

☐ b) $(y-2)^2 = 6(x-1)$

☐ c) $(x-1)^2 = 12(y-2)$

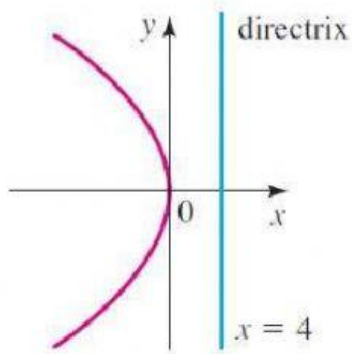
☐ d) $(x-1)^2 = 6(y-2)$

9. The focus is always inside the parabola

☐ a) True

☐ b) False

10.



What is the equation of this parabola?

☐ a) $y^2 = x$

☐ b) $x^2 = 4y$

☐ c) $x^2 = -y$

☐ d) $y^2 = -16x$

11. 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)