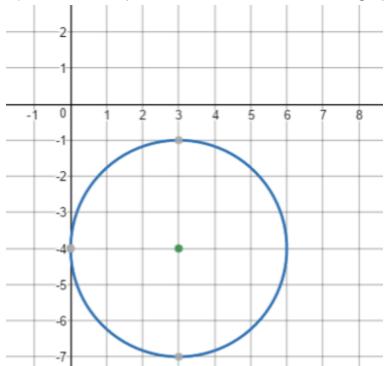
1.) What is the equation of the circle shown in the graph?



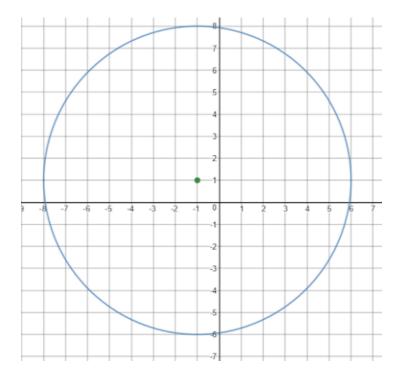
A.) 
$$(x - 3)^2 + (y + 4)^2 = 9$$

B.) 
$$(x + 3)^2 + (y - 4)^2 = 9$$

C.) 
$$(x - 3)^2 + (y + 4)^2 = 3$$

D.) 
$$(x + 3)^2 + (y - 4)^2 = 3$$

2.) What is the equation of the circle shown in the graph?



A.) 
$$(x + 1)^2 + (y - 1)^2 = 7$$

B.) 
$$(x + 1)^2 + (y - 1)^2 = \sqrt{7}$$

C.) 
$$(x + 1)^2 + (y - 1)^2 = 49$$

D.) 
$$(x - 1)^2 + (y + 1)^2 = 7$$

- 3.) What are the coordinates of the center and the radius of the circle with equation:  $(x 4)^2 + (y 3)^2 = 25$
- A.) Center (-4, -3), Radius = 5 units
- B.) Center (-4, -3), Radius = 25 units
- C.) Center (4, 3), Radius = 25 units
- D.) Center (4, 3), Radius = 5 units
- 4.) Determine the equation of a circle with center (0, 8) and radius 4.

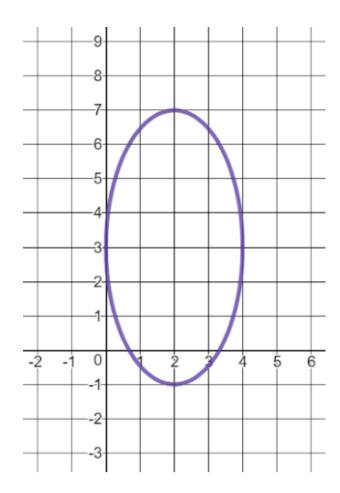
A.) 
$$x^2 + (y - 8)^2 = 16$$

B.) 
$$x^2 + (y - 8)^2 = 4$$

C.) 
$$(x - 8)^2 + y^2 = 4$$

D.) 
$$x^2 + (y + 8)^2 = 16$$

5.) What is the equation of the ellipse shown in the graph?



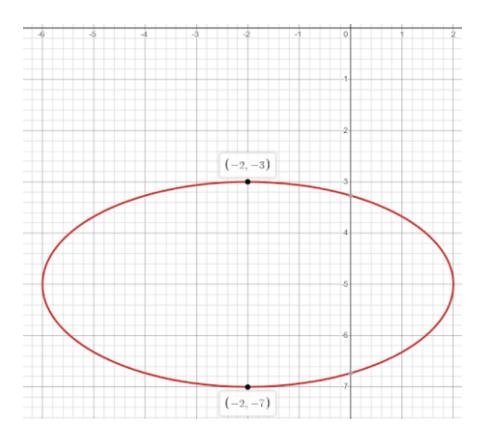
A.) 
$$\frac{(x-2)^2}{4} + \frac{(y-3)^2}{16} = 1$$

B.) 
$$\frac{(x-2)^2}{2} + \frac{(y-3)^2}{4} = 1$$

C.) 
$$\frac{(x-2)^2}{16} + \frac{(y-3)^2}{4} = 1$$

D.) 
$$\frac{(x+2)^2}{4} + \frac{(y+3)^2}{16} = 1$$

6.) What is the equation of the ellipse shown in the graph?



A.) 
$$\frac{(x+2)^2}{16} + \frac{(y-5)^2}{4} = 1$$

B.) 
$$\frac{(x+2)^2}{16} + \frac{(y-5)^2}{4} = 1$$

C.) 
$$\frac{(x+2)^2}{16} + \frac{(y+5)^2}{4} = 1$$

D.) 
$$\frac{(x+2)^2}{4} + \frac{(y+5)^2}{16} = 1$$

7.) The vertices of an ellipse are located at (-3, -1) & (5, -1). What is the equation of the ellipse if the length of the minor axis is 4?

A.) 
$$\frac{(x-1)^2}{16} + \frac{(y+1)^2}{4} = 1$$

B.) 
$$\frac{(x+1)^2}{16} + \frac{(y-1)^2}{4} = 1$$

C.) 
$$\frac{(x-1)^2}{16} + \frac{(y-1)^2}{4} = 1$$

D.) 
$$\frac{(x-4)^2}{25} + \frac{(y-1)^2}{9} = 1$$

8.) Find the equation of the ellipse with center at (2, -1), a horizontal major axis of length 10, and a vertical minor axis of length 8.

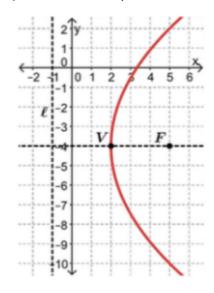
A.) 
$$\frac{(x-2)^2}{25} + \frac{(y+1)^2}{16} = 1$$

B.) 
$$\frac{(x-2)^2}{25} - \frac{(y+1)^2}{16} = 1$$

$$(x+2)^2 + \frac{(y-1)^2}{16} = 1$$

D.) 
$$\frac{(x-2)^2}{16} + \frac{(y+1)^2}{25} = 1$$

9.) What is the equation of the parabola shown in the graph?



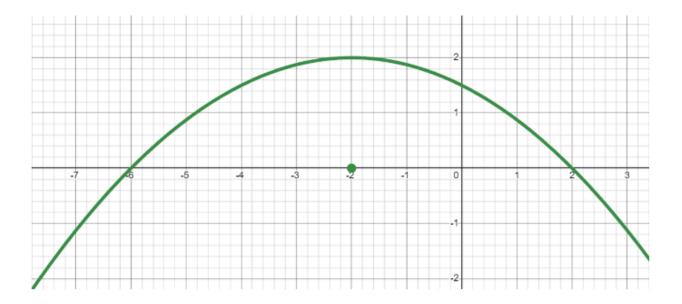
A.) 
$$(y - 4)^2 = 12(x + 2)$$

B.) 
$$(y + 4)^2 = -12(x - 2)$$

C.) 
$$(y - 4)^2 = -12(x - 2)$$

D.) 
$$(y + 4)^2 = 12(x - 2)$$

10.) What is the equation of the parabola shown in the graph?



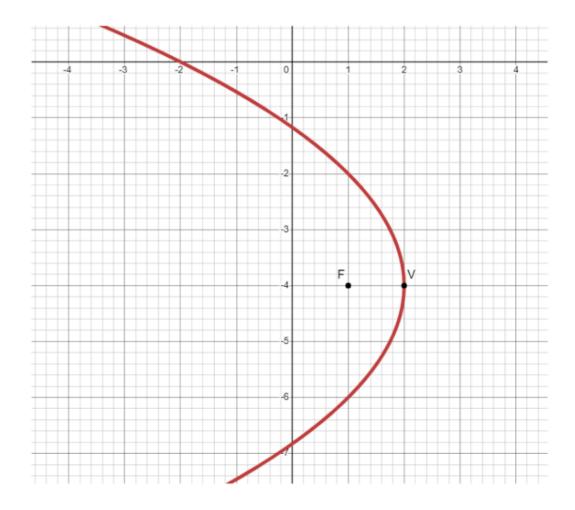
$$\frac{(x-2)^2}{4(2)} = (y+2)$$

$$\frac{(x+2)^2}{4(-2)} = (y-2)$$

A.) 
$$\frac{(x-2)^2}{4(2)} = (y+2)$$
B.) 
$$\frac{(x+2)^2}{4(-2)} = (y-2)$$
C.) 
$$\frac{(x-2)^2}{4(-2)} = (y+2)$$
D.) 
$$\frac{(x+2)^2}{4(2)} = (y-2)$$

$$\frac{(x+2)^2}{4(2)} = (y-2)$$

11.) What is the equation of the parabola shown in the graph?



A.) 
$$\frac{(y+4)^2}{4} = (x-2)$$
B.) 
$$\frac{(y+4)^2}{-4} = (x-2)$$

$$\frac{(y+4)^2}{-4} = (x-2)$$

$$\frac{(y+4)^2}{-1} = (x-2)$$

B.) 
$$\frac{(y+4)^2}{-1} = (x-2)$$
C.) 
$$\frac{(y+4)^2}{1} = (x-2)$$
D.)

12.) Find the vertex and focus of the parabola.

$$\frac{(y-2)^2}{4(-4)} = (x-3)$$

- A.) Vertex: (-3, -2) Focus: (-3, 14)
- B.) Vertex: (-3, -2) Focus: (-3, 18)
- C.) Vertex: (-3, -2) Focus: (-7, -2)
- D.) Vertex: (3, 2) Focus: (-1, 2)
- 13.) Find the standard form of the equation of the parabola with the given focus (0, 7) and vertex at the origin (0, 0).

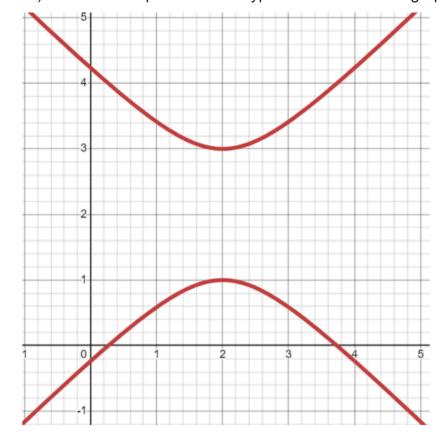
$$\frac{x^2}{4(7)} = y$$

$$\frac{x^2}{7} = y$$

$$\frac{x^2}{77} = -y$$

$$\frac{x^2}{4(7)} = y$$
A.) 
$$\frac{x^2}{7} = y$$
B.) 
$$\frac{x^2}{77} = -y$$
C.) 
$$\frac{y^2}{4(7)} = x$$

14.) What is the equation of the hyperbola shown in the graph?



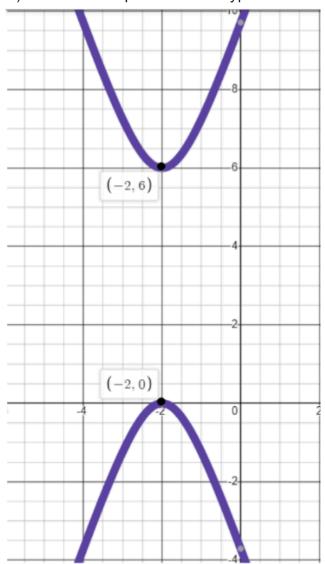
A.) 
$$\frac{(y-2)^2}{1} - \frac{(x-2)^2}{1} = 1$$

B.) 
$$\frac{(y+2)^2}{1} - \frac{(x+2)^2}{1} = 1$$

C.) 
$$\frac{(x-2)^2}{1} - \frac{(y-2)^2}{1} = 1$$

D.) 
$$\frac{(x+2)^2}{1} - \frac{(y+2)^2}{1} = 1$$

15.) What is the equation of the hyperbola shown in the graph?



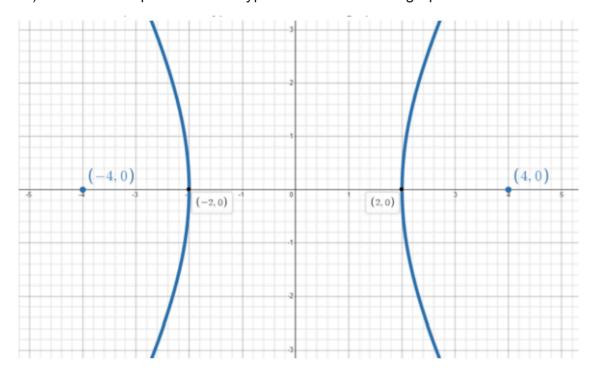
A.) 
$$\frac{(y-3)^2}{1} - \frac{(x+2)^2}{1} = 1$$

B.) 
$$\frac{(y-3)^2}{4} - \frac{(x+2)^2}{1} = 1$$

C.) 
$$\frac{(y-3)^2}{6} - \frac{(x+2)^2}{1} = 1$$

D.) 
$$\frac{(y-3)^2}{9} - \frac{(x+2)^2}{1} = 1$$

16.) What is the equation of the hyperbola shown in the graph?



A.) 
$$\frac{(x)^2}{12} - \frac{(y)^2}{4} = 1$$

B.) 
$$\frac{(x)^2}{4} - \frac{(y)^2}{12} = 1$$

(y)<sup>2</sup>/<sub>12</sub> - 
$$\frac{(x)^2}{4}$$
 = 1

D.) 
$$\frac{(y)^2}{4} - \frac{(x)^2}{12} = 1$$

17.) Determine the equation of the hyperbola with vertices at  $(0, \pm 5)$  and foci at  $(0, \pm 7)$ 

A.) 
$$\frac{x^2}{25} - \frac{y^2}{24} = 1$$

B.) 
$$rac{y^2}{25} - rac{x^2}{24} = 1$$

$$\frac{y^2}{24} - \frac{x^2}{25} = 1$$

D.) 
$$\frac{y^2}{25} - \frac{x^2}{1} = 1$$

18.) What is the center of the hyperbola?

$$\frac{(x-1)^2}{4} - \frac{(y+4)^2}{9} = 1$$

- A.) (-1, 4)
- B.) (-1, -4)
- C.) (1, -4)
- D.) (1, 4)