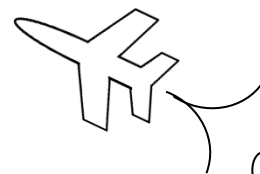


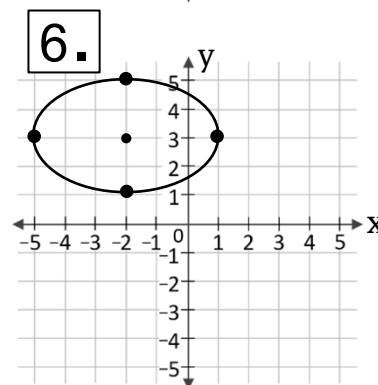
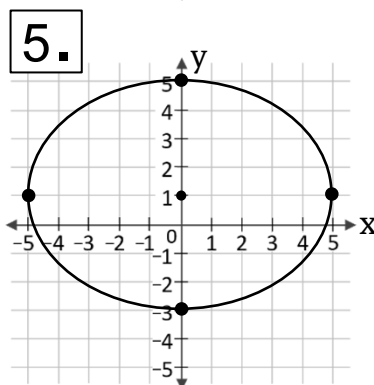
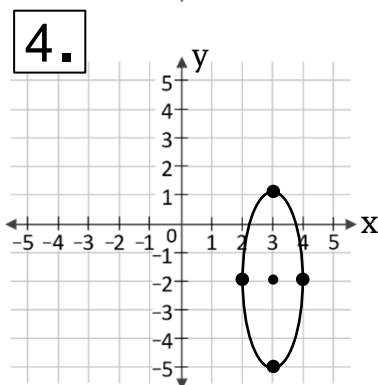
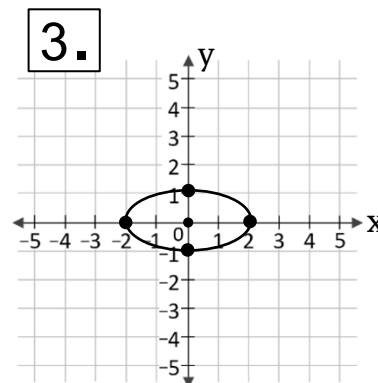
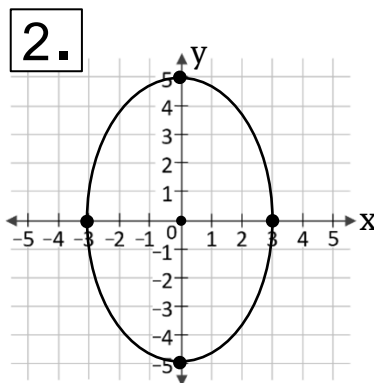
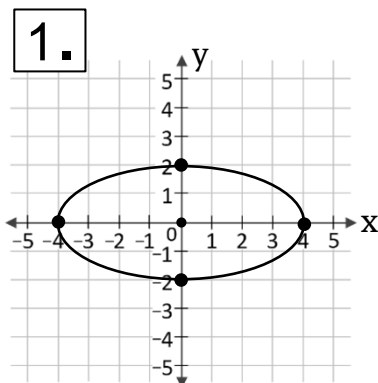
Math on the Fly!



NAME: _____ DATE: _____

Equations of Ellipses

Find the equation of each ellipse.



Graph each ellipse.

Also provide the center and the lengths of the minor axis and major axis.

7. $\frac{x^2}{16} + \frac{y^2}{9} = 1$

8. $\frac{x^2}{4} + \frac{y^2}{25} = 1$

9. $\frac{x^2}{9} + y^2 = 1$

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

11. $\frac{(x-2)^2}{9} + \frac{(y+1)^2}{16} = 1$

12. $\frac{x^2}{25} + \frac{(y-3)^2}{4} = 1$

SOLUTIONS

1.

$$\frac{x^2}{16} + \frac{y^2}{4} = 1$$

2.

$$\frac{x^2}{9} + \frac{y^2}{25} = 1$$

3.

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

4.

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

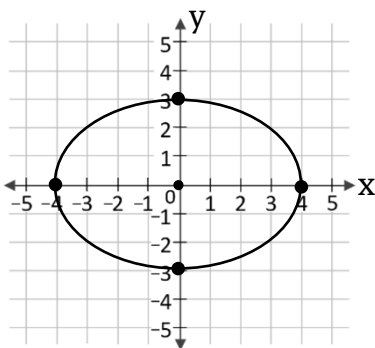
5.

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

6.

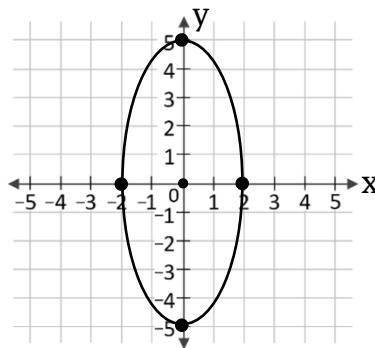
$$\frac{(x+2)^2}{9} + \frac{(y-3)^2}{4} = 1$$

7.



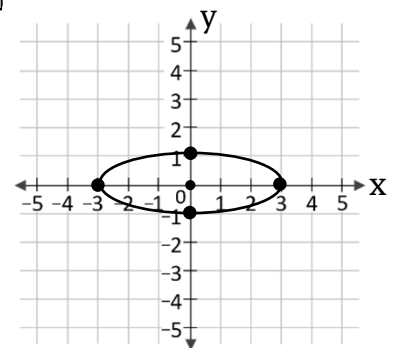
Center = (0,0)
Minor Axis = 4
Major Axis = 8

8.



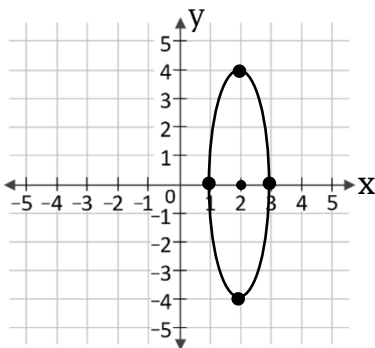
Center = (0,0)
Minor Axis = 4
Major Axis = 10

9.



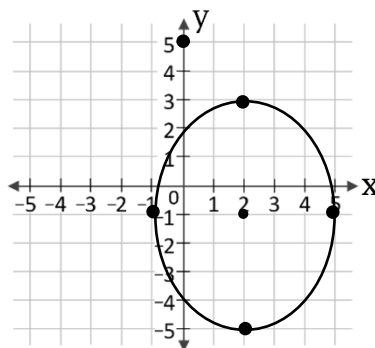
Center = (0,0)
Minor Axis = 2
Major Axis = 6

10.



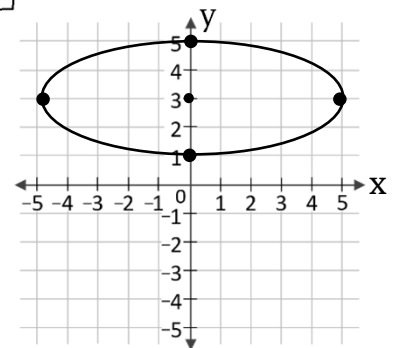
Center = (2,0)
Minor Axis = 8
Major Axis = 8

11.



Center = (2,-1)
Minor Axis = 6
Major Axis = 8

12.



Center = (0,3)
Minor Axis = 4
Major Axis = 10