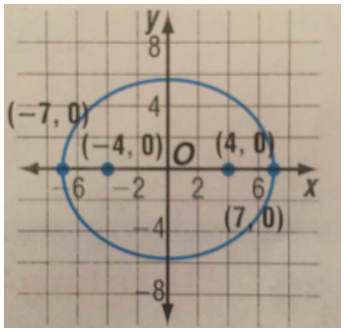
ELLIPSE

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

2. Find the coordinates of the foci and the lengths of the major and minor axes of an ellipse whose equation is $16x^2 + 4y^2 = 144$.

3. Write the equation of the ellipse shown below.



4. An equation of an ellipse is $x^2 + 9y^2 – 4x + 54y + 49 = 0$. Find the coordinates of the center and foci and the lengths of the major and minor axes. Then draw the graph.

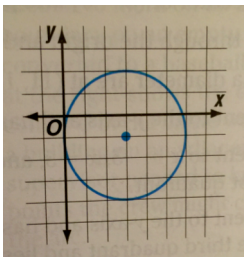
CIRCLES

1. Write the equation of the circle with center (-12, 0) and radius $\sqrt{23}$ units.

2. Find the coordinates of the center and the radius of the circle whose equation is $(x - 4)^2 + (y -1)^2 = 9$. Then draw the graph.

3. Find the coordinates of the center and the radius of the circle whose equation is $x^2 + y^2 + 8x – 6y = 0$. Then draw the graph.

4. Write an equation for the graph below.



5. Write an equation for a circle that has its center at (4, -2) and passes through (5, 3).