Standard Form equation of Ellipse

Lesson online @ www.mathwarehouse.com/ellipse/equation-of-ellipse.php

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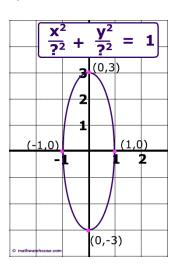
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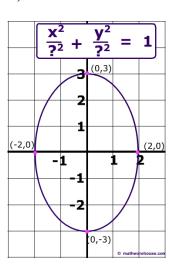
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Directions: Find the values of a and b and write the equation for each ellipse.

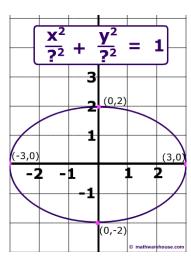
1)



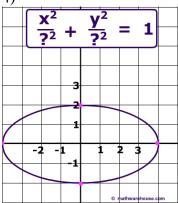
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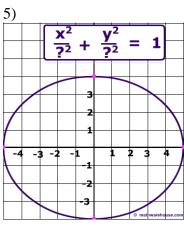


3)

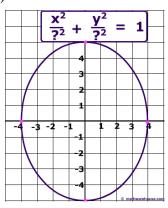


4)

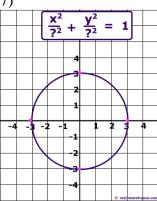




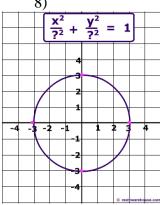
6)



7)



8)

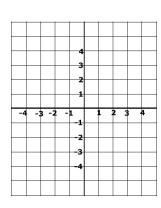


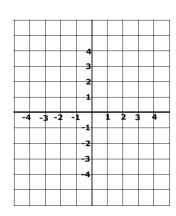
Part II **Directions**: Graph ellipses with the following equations

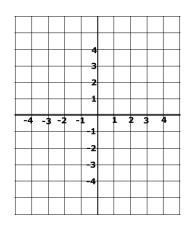
1)
$$\frac{x^2}{2^2} + \frac{y^2}{5^2} = 1$$

1)
$$\left[\frac{x^2}{2^2} + \frac{y^2}{5^2} = 1\right]$$
 2) $\left[\frac{x^2}{25} + \frac{y^2}{9} = 1\right]$ 3) $\left[\frac{x^2}{25} + \frac{y^2}{36} = 1\right]$

3)
$$\frac{x^2}{25} + \frac{y^2}{36} = 1$$



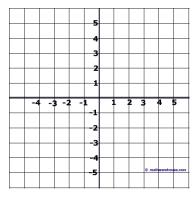


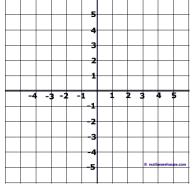


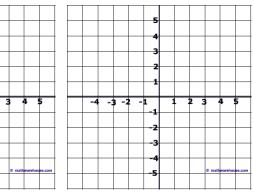
4)
$$\left[\frac{x^2}{36} + \frac{y^2}{25} = 1\right]$$

4)
$$\left[\frac{x^2}{36} + \frac{y^2}{25} = 1\right]$$
 5) $\left[\frac{x^2}{36} + \frac{y^2}{4} = 1\right]$ 6) $\left[\frac{x^2}{1} + \frac{y^2}{36} = 1\right]$

$$\left[\frac{x^2}{1} + \frac{y^2}{36} = 1\right]$$



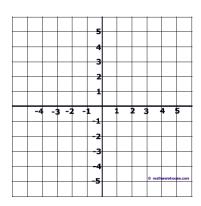


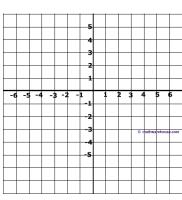


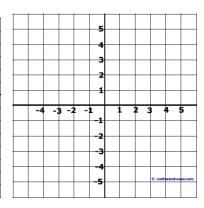
7)
$$\left[\frac{x^2}{36} + \frac{y^2}{4} = 1\right]$$
 8) $\left[\frac{x^2}{49} + \frac{y^2}{9} = 1\right]$ 9) $\left[9x^2 + 4y^2 = 36\right]$

$$8) \sqrt{\frac{x^2}{49} + \frac{y^2}{9}} = 1$$

9)
$$9x^2 + 4y^2 = 36$$

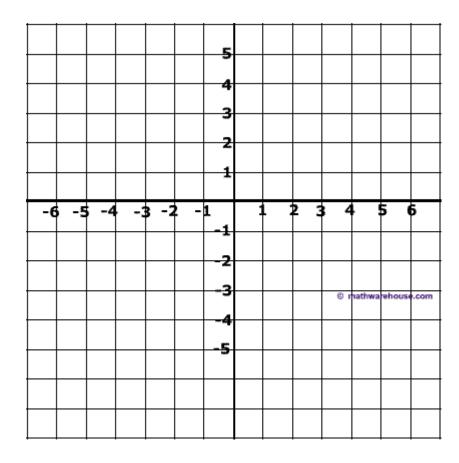






Equation of Ellipse Activity

a: b:
Task #2) Write the equation of the ellipse: Equation:
Task #3) Graph the ellipse and label each of the following
Major axis:
Minor Axis:
Vertices:
Co-Vertices:



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