

# Standard Form equation of Ellipse

Lesson online @ [www.mathwarehouse.com/ellipse/equation-of-ellipse.php](http://www.mathwarehouse.com/ellipse/equation-of-ellipse.php)

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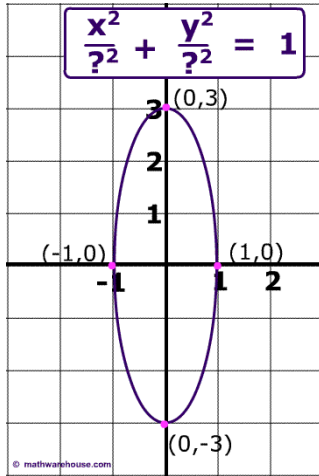
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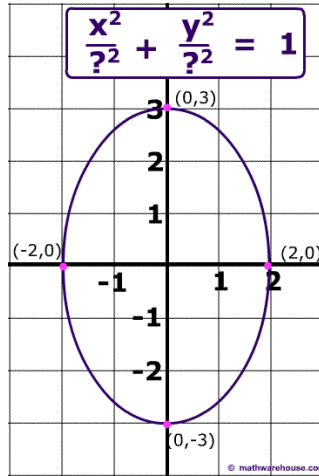
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**Directions:** Find the values of a and b and write the equation for each ellipse.

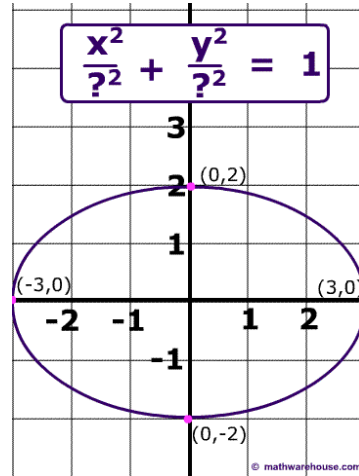
1)



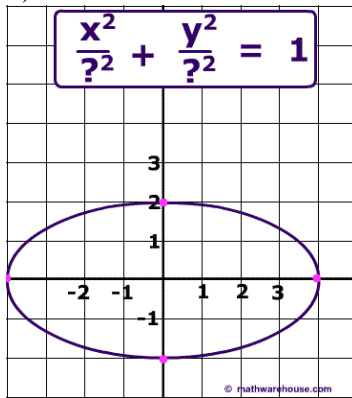
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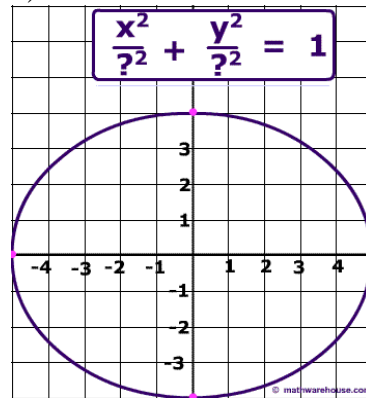
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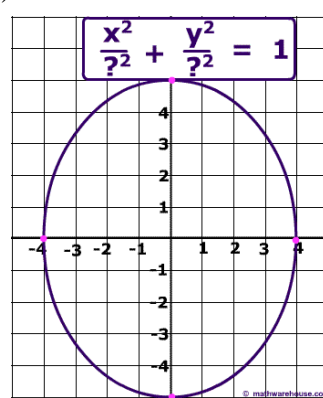
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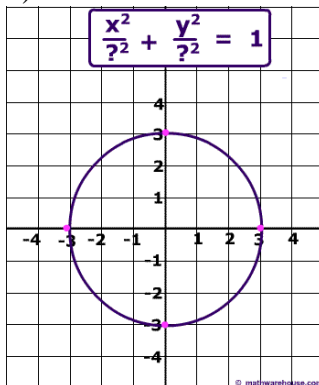
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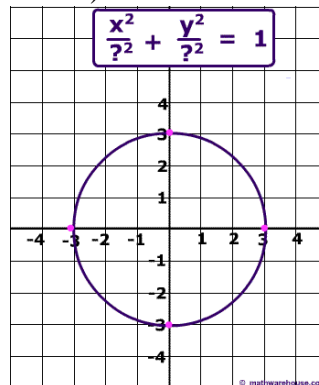
6)



7)

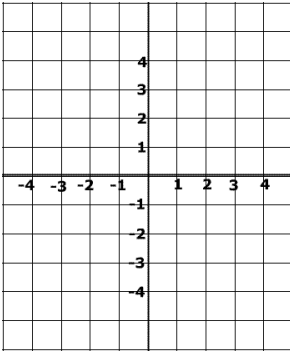


8)

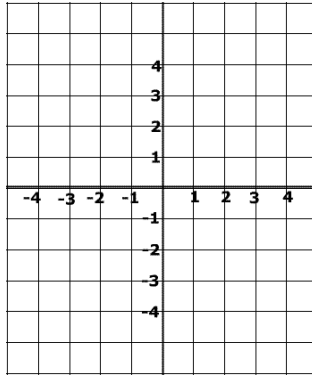


**Part II**      **Directions:** Graph ellipses with the following equations

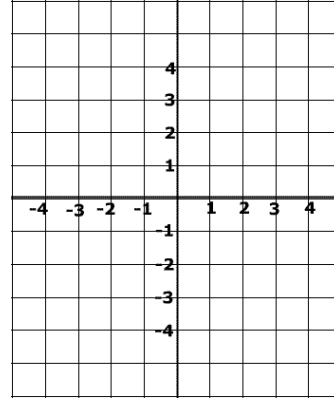
1)  $\frac{x^2}{2^2} + \frac{y^2}{5^2} = 1$



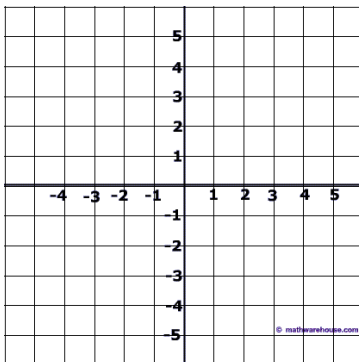
2)  $\frac{x^2}{25} + \frac{y^2}{9} = 1$



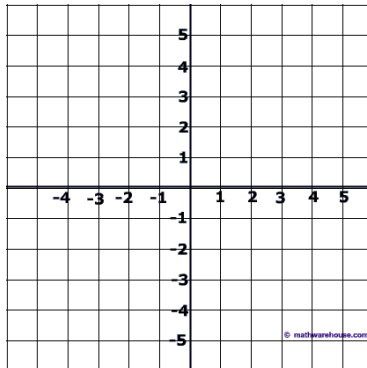
3)  $\frac{x^2}{25} + \frac{y^2}{36} = 1$



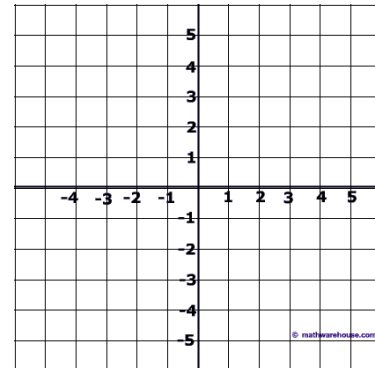
4)  $\frac{x^2}{36} + \frac{y^2}{25} = 1$



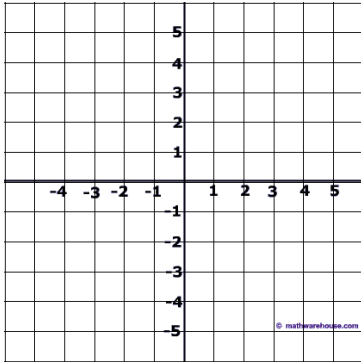
5)  $\frac{x^2}{36} + \frac{y^2}{4} = 1$



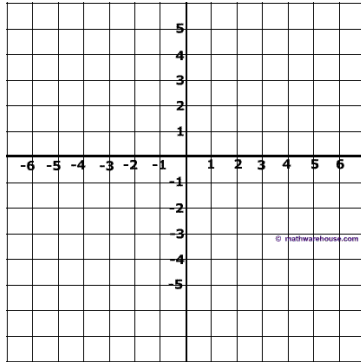
6)  $\frac{x^2}{1} + \frac{y^2}{36} = 1$



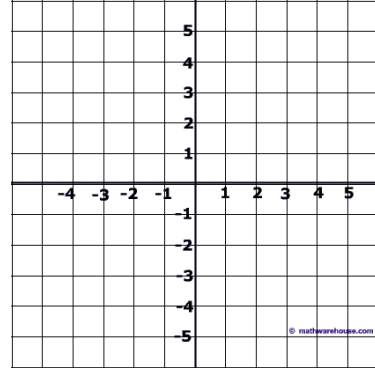
7)  $\frac{x^2}{36} + \frac{y^2}{4} = 1$



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



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



# Equation of Ellipse Activity

**Task #1)** Pick a number to be a and b for an ellipse.

a: \_\_\_                      b: \_\_\_

**Task #2)** Write the equation of the ellipse:

Equation: \_\_\_\_\_

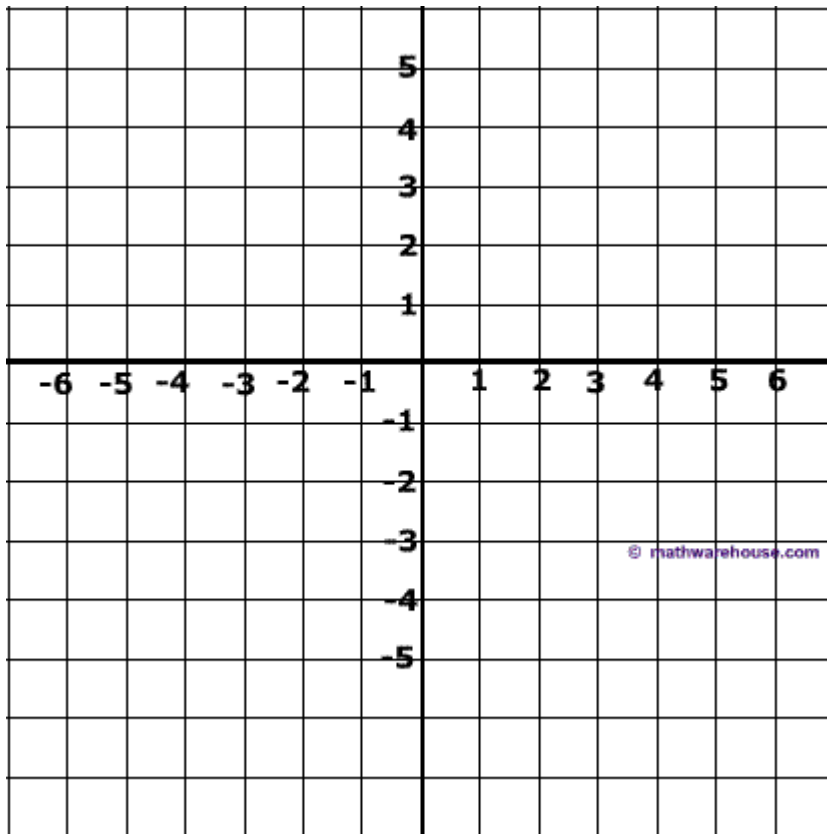
**Task #3)** Graph the ellipse and label each of the following

Major axis: \_\_\_\_\_

Minor Axis: \_\_\_\_\_

Vertices: \_\_\_\_\_

Co-Vertices: \_\_\_\_\_



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