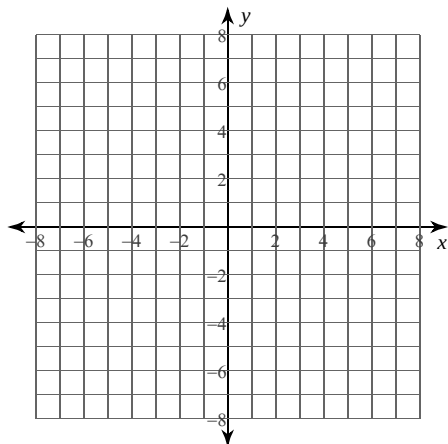


## Class Time Examples

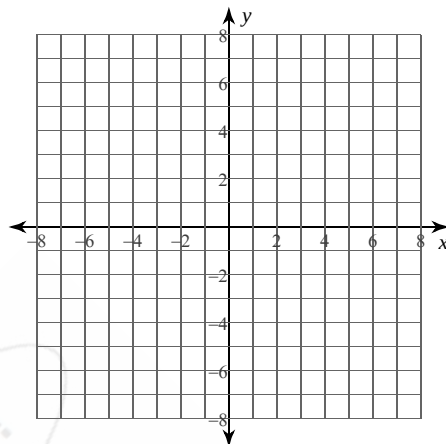
Date \_\_\_\_\_

**Identify the vertices and foci of each. Then sketch the graph.**

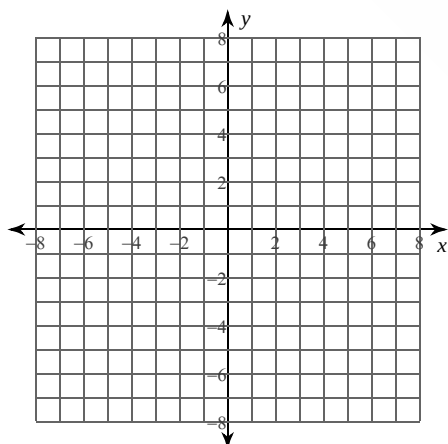
1)  $\frac{x^2}{4} + y^2 = 1$



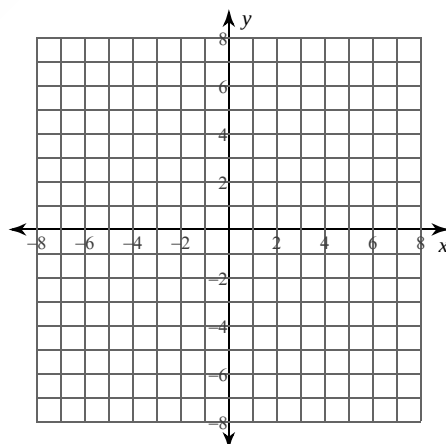
2)  $\frac{x^2}{36} + \frac{y^2}{16} = 1$



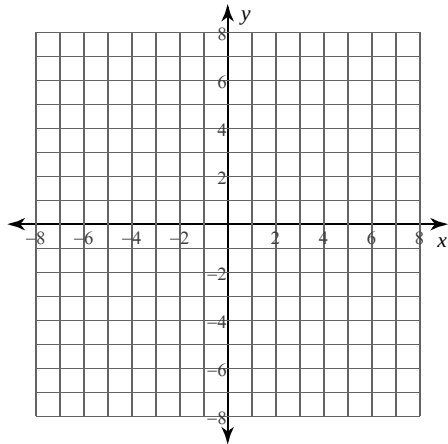
3)  $\frac{x^2}{25} + \frac{y^2}{49} = 1$



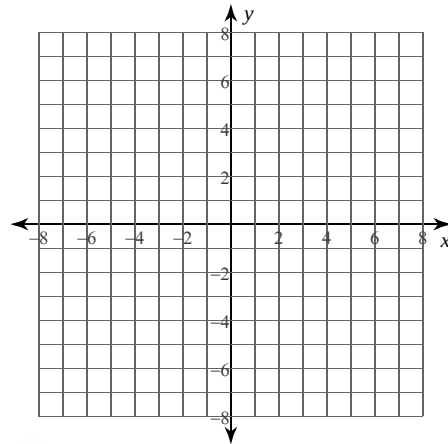
4)  $\frac{x^2}{36} + \frac{y^2}{9} = 1$



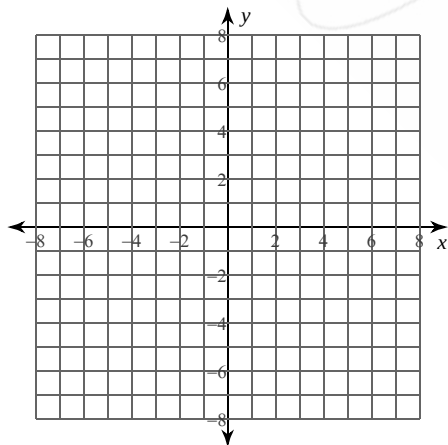
$$5) \frac{(x+2)^2}{25} + \frac{(y-1)^2}{20} = 1$$



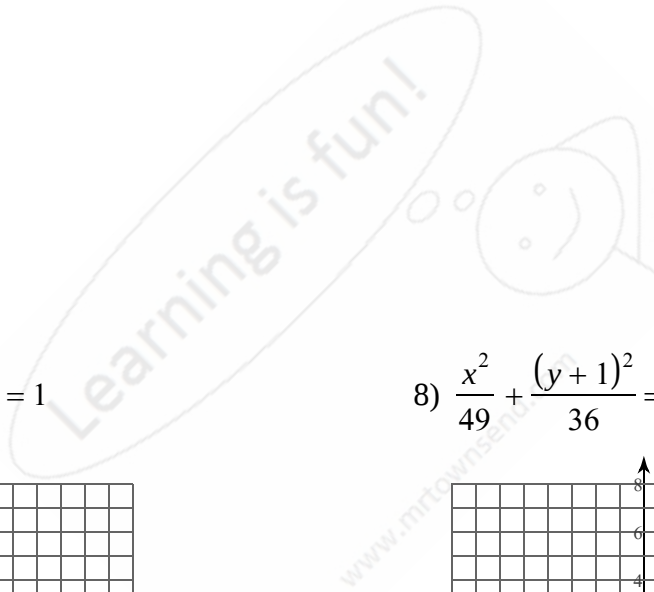
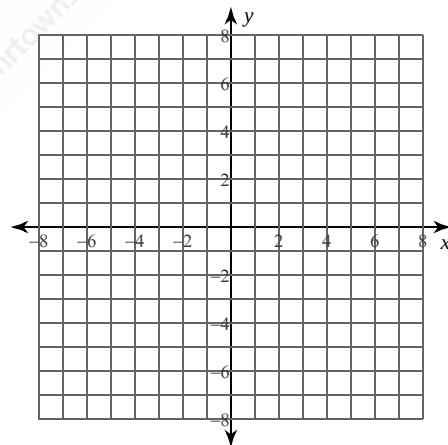
$$6) \frac{(x+2)^2}{15} + \frac{(y-1)^2}{25} = 1$$



$$7) \frac{(x+4)^2}{9} + \frac{(y+1)^2}{25} = 1$$

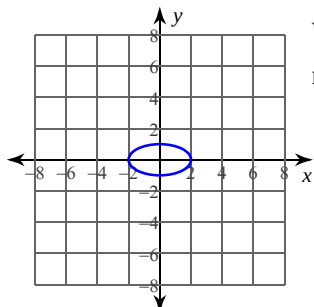


$$8) \frac{x^2}{49} + \frac{(y+1)^2}{36} = 1$$



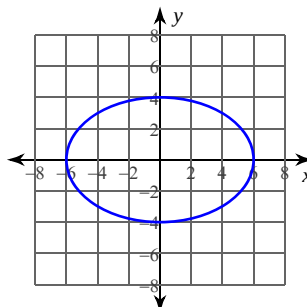
# Answers to Class Time Examples

1)



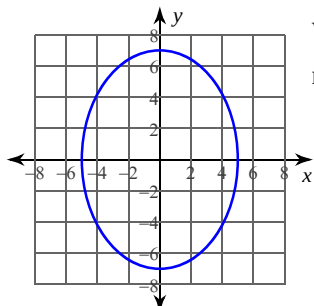
Vertices:  $(2, 0)$   
 $(-6, 0)$   
 Foci:  $(\sqrt{3}, 0)$   
 $(-\sqrt{3}, 0)$

2)



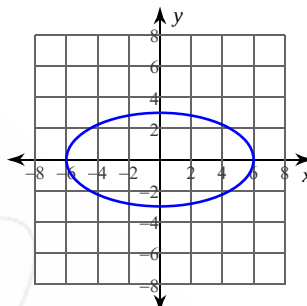
Vertices:  $(6, 0)$   
 $(-6, 0)$   
 Foci:  $(2\sqrt{5}, 0)$   
 $(-2\sqrt{5}, 0)$

3)



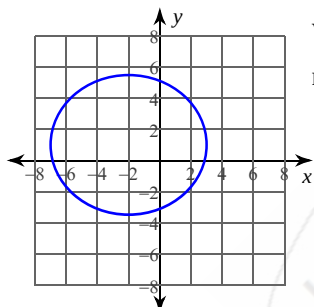
Vertices:  $(0, 7)$   
 $(0, -7)$   
 Foci:  $(0, 2\sqrt{6})$   
 $(0, -2\sqrt{6})$

4)



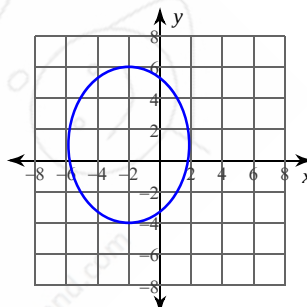
Vertices:  $(6, 0)$   
 $(-6, 0)$   
 Foci:  $(3\sqrt{3}, 0)$   
 $(-3\sqrt{3}, 0)$

5)



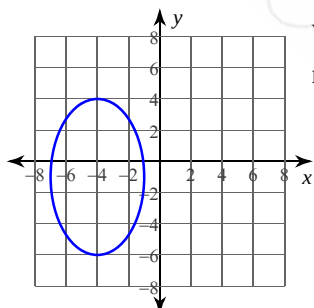
Vertices:  $(3, 1)$   
 $(-7, 1)$   
 Foci:  $(-2 + \sqrt{5}, 1)$   
 $(-2 - \sqrt{5}, 1)$

6)



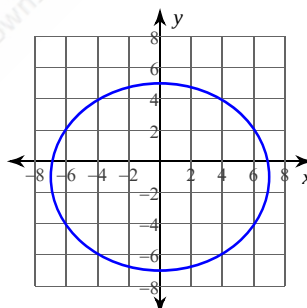
Vertices:  $(-2, 6)$   
 $(-2, -4)$   
 Foci:  $(-2, 1 + \sqrt{10})$   
 $(-2, 1 - \sqrt{10})$

7)



Vertices:  $(-4, 4)$   
 $(-4, -6)$   
 Foci:  $(-4, 3)$   
 $(-4, -5)$

8)



Vertices:  $(7, -1)$   
 $(-7, -1)$   
 Foci:  $(\sqrt{13}, -1)$   
 $(-\sqrt{13}, -1)$