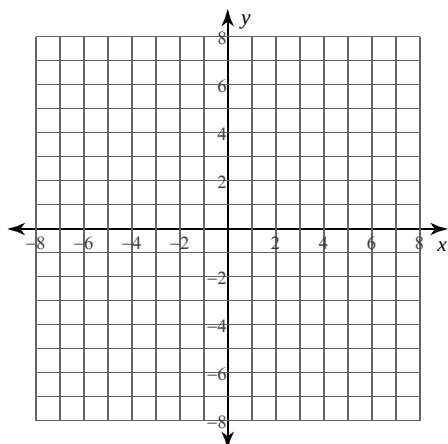


Class Time Examples

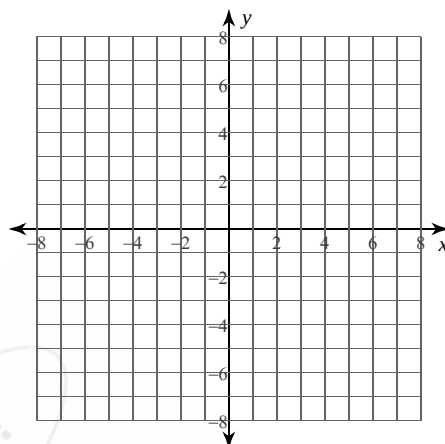
Date _____

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

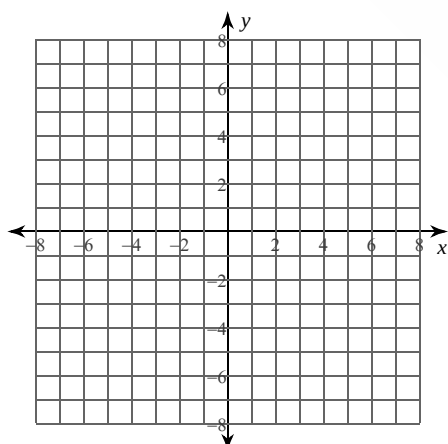
1) $\frac{x^2}{10} - \frac{y^2}{15} = 1$



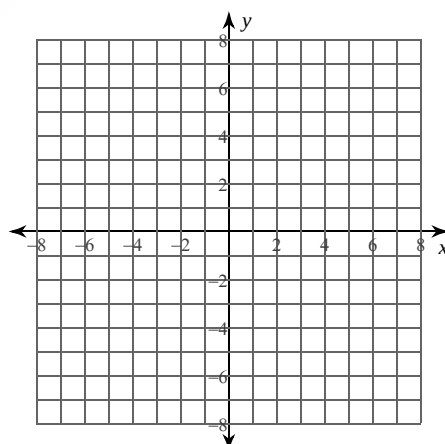
2) $\frac{x^2}{25} - y^2 = 1$



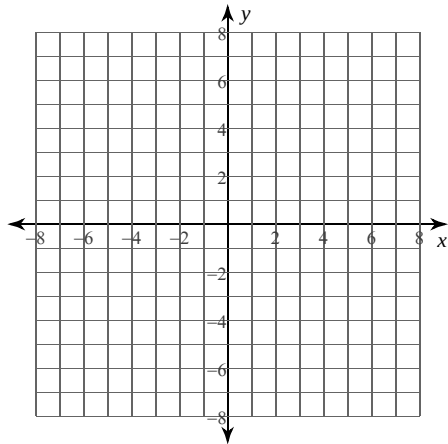
3) $\frac{y^2}{15} - \frac{x^2}{15} = 1$



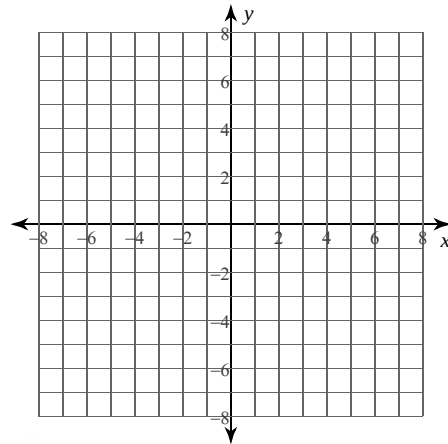
4) $\frac{x^2}{4} - y^2 = 1$



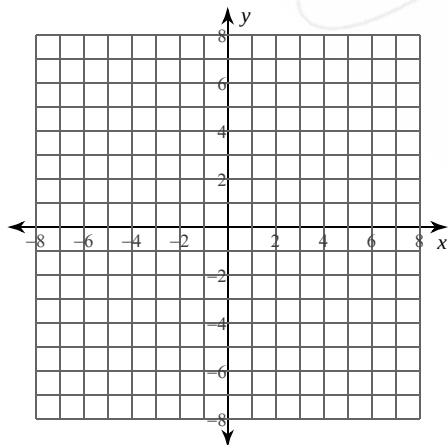
$$5) \frac{x^2}{25} - \frac{(y+2)^2}{9} = 1$$



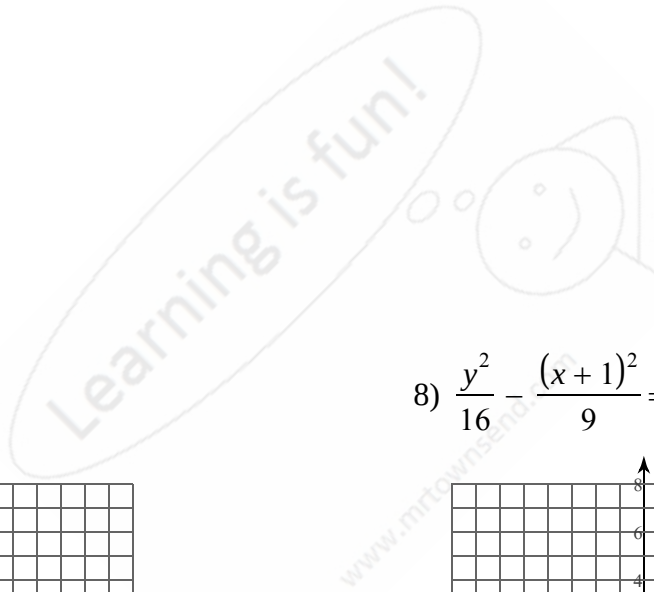
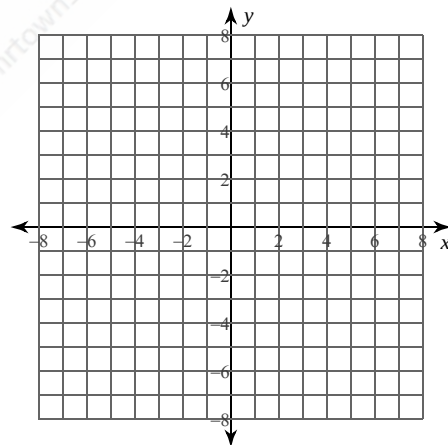
$$6) \frac{y^2}{9} - \frac{(x+2)^2}{9} = 1$$



$$7) \frac{y^2}{16} - \frac{(x+2)^2}{4} = 1$$

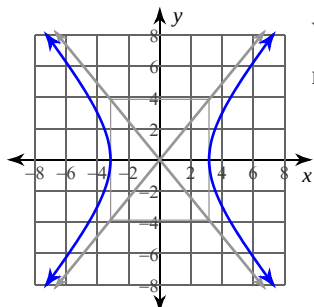


$$8) \frac{y^2}{16} - \frac{(x+1)^2}{9} = 1$$



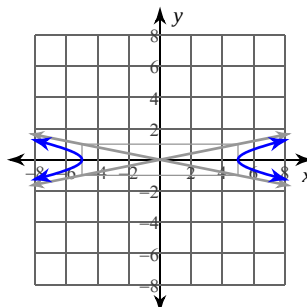
Answers to Class Time Examples

1)



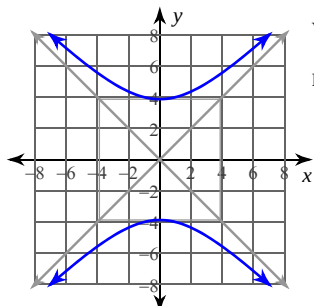
Vertices: $(\sqrt{10}, 0)$
 $(-\sqrt{10}, 0)$
 Foci: $(5, 0)$
 $(-5, 0)$

2)



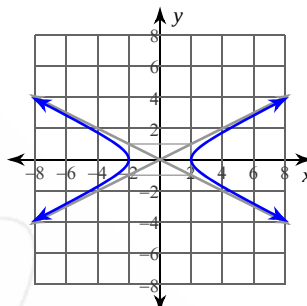
Vertices: $(5, 0)$
 $(-5, 0)$
 Foci: $(\sqrt{26}, 0)$
 $(-\sqrt{26}, 0)$

3)



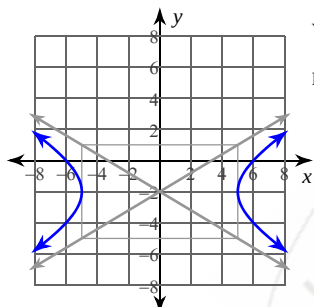
Vertices: $(0, \sqrt{15})$
 $(0, -\sqrt{15})$
 Foci: $(0, \sqrt{30})$
 $(0, -\sqrt{30})$

4)



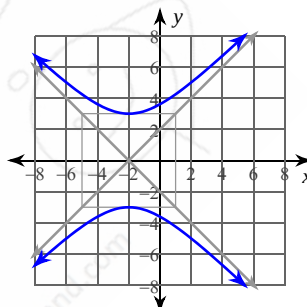
Vertices: $(2, 0)$
 $(-2, 0)$
 Foci: $(\sqrt{5}, 0)$
 $(-\sqrt{5}, 0)$

5)



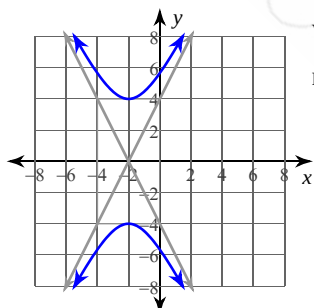
Vertices: $(5, -2)$
 $(-5, -2)$
 Foci: $(\sqrt{34}, -2)$
 $(-\sqrt{34}, -2)$

6)



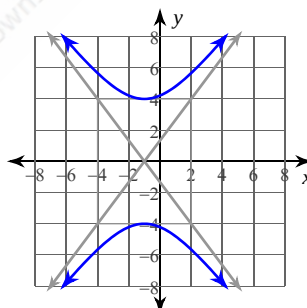
Vertices: $(-2, 3)$
 $(-2, -3)$
 Foci: $(-2, 3\sqrt{2})$
 $(-2, -3\sqrt{2})$

7)



Vertices: $(-2, 4)$
 $(-2, -4)$
 Foci: $(-2, 2\sqrt{5})$
 $(-2, -2\sqrt{5})$

8)



Vertices: $(-1, 4)$
 $(-1, -4)$
 Foci: $(-1, 5)$
 $(-1, -5)$