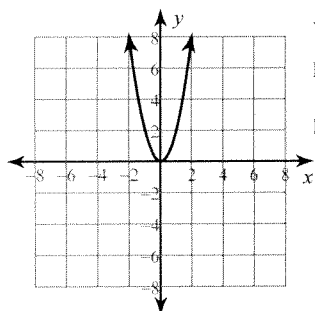


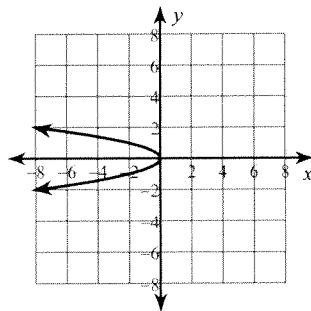
Answers to Conics Quiz I Review (ID: 1)

1)



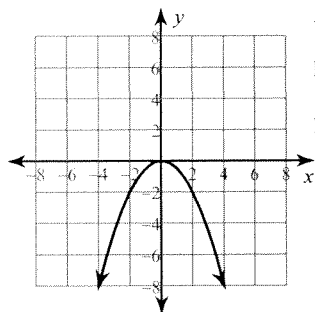
Vertex: $(0, 0)$
Focus: $(0, \frac{1}{8})$
Directrix: $y = -\frac{1}{8}$

2)



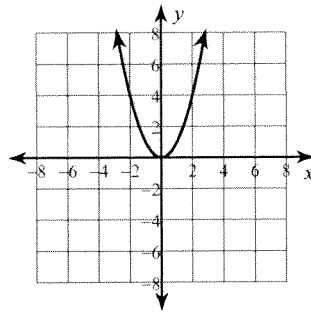
Vertex: $(0, 0)$
Focus: $(-\frac{1}{8}, 0)$
Directrix: $x = \frac{1}{8}$

3)



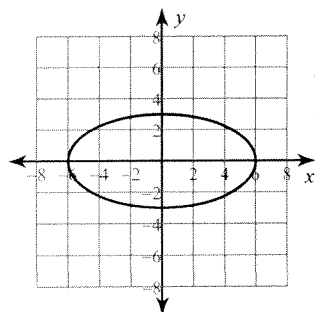
Vertex: $(0, 0)$
Focus: $(0, -\frac{1}{2})$
Directrix: $y = \frac{1}{2}$

4)



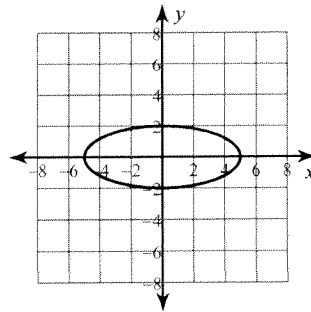
Vertex: $(0, 0)$
Focus: $(0, \frac{1}{4})$
Directrix: $y = -\frac{1}{4}$

5)



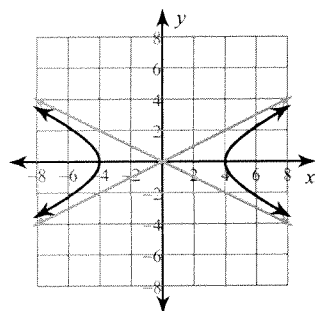
Vertices: $(6, 0)$
 $(-6, 0)$
Co-vertices: $(0, 3)$
 $(0, -3)$
Foci: $(3\sqrt{3}, 0)$
 $(-3\sqrt{3}, 0)$
Eccentricity: $\frac{\sqrt{3}}{2} \approx 0.866$

6)



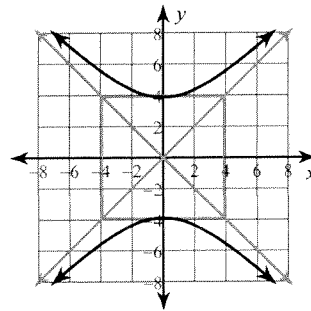
Vertices: $(5, 0)$
 $(-5, 0)$
Co-vertices: $(0, 2)$
 $(0, -2)$
Foci: $(\sqrt{21}, 0)$
 $(-\sqrt{21}, 0)$
Eccentricity: $\frac{\sqrt{21}}{5} \approx 0.917$

7)



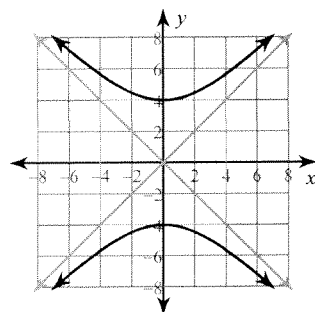
Vertices: $(4, 0)$
 $(-4, 0)$
Foci: $(2\sqrt{5}, 0)$
 $(-2\sqrt{5}, 0)$
Asym.: $y = \frac{1}{2}x$
 $y = -\frac{1}{2}x$

8)



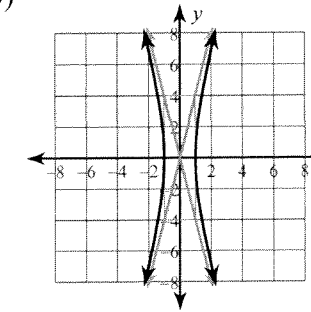
Vertices: $(0, \sqrt{15})$
 $(0, -\sqrt{15})$
Foci: $(0, \sqrt{30})$
 $(0, -\sqrt{30})$
Asym.: $y = x$
 $y = -x$

9)



Vertices: $(0, 4)$
 $(0, -4)$
Foci: $(0, 4\sqrt{2})$
 $(0, -4\sqrt{2})$
Asym.: $y = x$
 $y = -x$

10)



Vertices: $(1, 0)$
 $(-1, 0)$
Foci: $(\sqrt{17}, 0)$
 $(-\sqrt{17}, 0)$
Asym.: $y = 4x$
 $y = -4x$

11) $3x^2 + y = 0$

12) $-y^2 + x = 0$

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

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

13) $\frac{x^2}{64} + \frac{y^2}{196} = 1$

14) $\frac{x^2}{16} + \frac{y^2}{25} = 1$

17) $\frac{y^2}{16} - \frac{x^2}{9} = 1$

18) $\frac{x^2}{49} - \frac{y^2}{4} = 1$