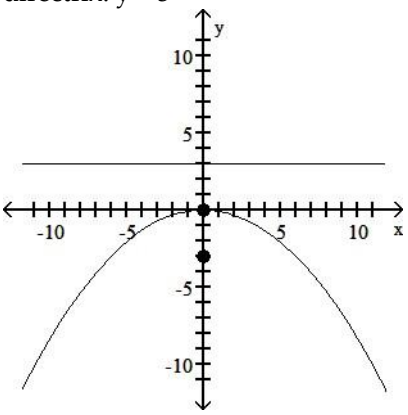
Chapter 10.2-10.4 Review Solutions

1) $y^2 = 100x$

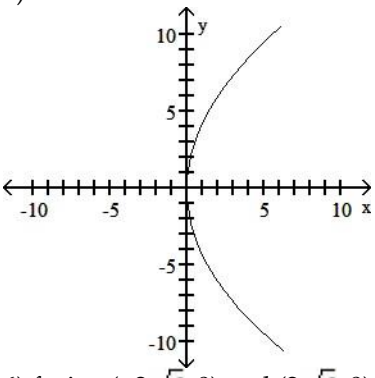
2) $y^2 = 12x$

3) $y^2 = \frac{64}{9}x$

4) vertex: (0, 0)
focus: (0, -3)
directrix: y = 3



5)



6) foci at $(-2\sqrt{6}, 0)$ and $(2\sqrt{6}, 0)$
vertices at (- 7, 0), (7, 0)

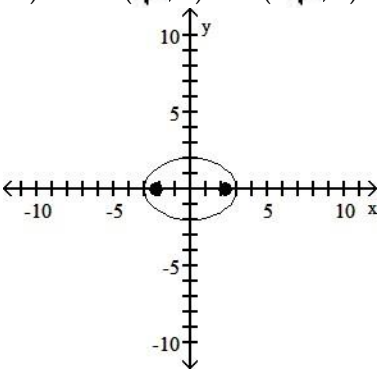
7) foci at $(0, -\sqrt{77})$ and $(0, \sqrt{77})$
vertices at (0, - 9), (0, 9)

8) $\frac{x^2}{36} + \frac{y^2}{11} = 1$

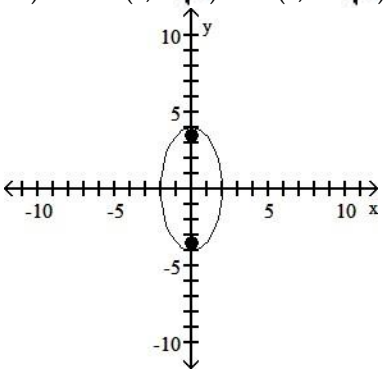
9) 0.5 in. from the vertex

10) foci at $(-\sqrt{13}, 0)$ and $(\sqrt{13}, 0)$
vertices at (- 7, 0), (7, 0)

11) foci at $(\sqrt{5}, 0)$ and $(-\sqrt{5}, 0)$



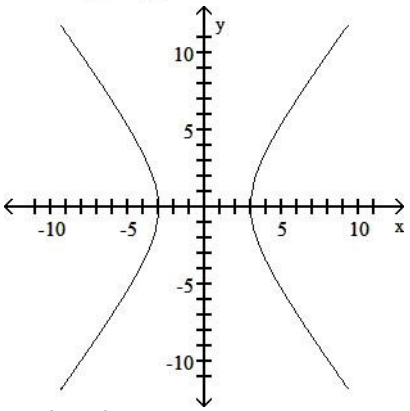
12) foci at $(0, 2\sqrt{3})$ and $(0, -2\sqrt{3})$



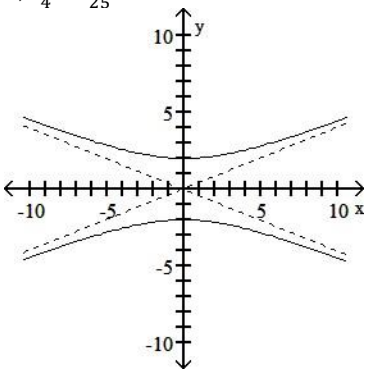
13) 60 ft

14) $\frac{y^2}{100} - \frac{x^2}{36} = 1$

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

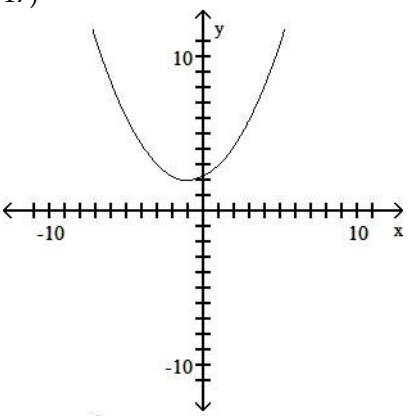


b) $\frac{y^2}{4} - \frac{x^2}{25} = 1$



16) center at (0, 0)
transverse axis is x-axis
vertices at (- 5, 0) and (5, 0)
foci at (- $\sqrt{106}$, 0) and ($\sqrt{106}$, 0)
asymptotes of y = - $\frac{9}{5}$ and y = $\frac{9}{5}$

17)



18) y = $\frac{1}{3}$x + 1; for x in -6 ≤ x ≤ 9

19) $x^2 + y^2 = 25$; for x in -5 ≤ x ≤ 5