Answer Key

Practice A

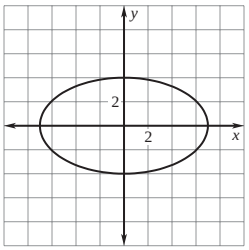
1. vertices: $(\pm 9, 0)$; co-vertices: $(0, \pm 2)$; foci: $\left(\pm\sqrt{77}, 0\right)$ **2.** vertices: $(0, \pm 5)$; co-vertices: $(\pm 4, 0)$; foci: $(0, \pm 3)$

3. vertices: $(0, \pm 4)$; co-vertices: $\left(\pm 2\sqrt{3}, 0\right)$; foci: $(0, \pm 2)$ **4.** $\frac{x^2}{1} + \frac{y^2}{4} = 1$; vertices: $(0, \pm 2)$; co-vertices: $(\pm 1, 0)$; foci: $\left(0, \pm\sqrt{3}\right)$

5. $\frac{x^2}{169} + \frac{y^2}{1} = 1$; vertices: $(\pm 13, 0)$; co-vertices: $(0, \pm 1)$; foci: $\left(\pm 2\sqrt{42}, 0\right)$

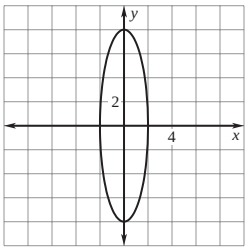
6. $\frac{x^2}{4} + \frac{y^2}{25} = 1$; vertices: $(0, \pm 5)$; co-vertices: $(\pm 2, 0)$; foci: $\left(0, \pm\sqrt{21}\right)$

7.



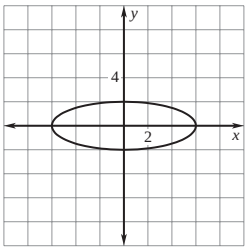
vertices: $(\pm 7, 0)$;
co-vertices: $(0, \pm 4)$;
foci: $\left(\pm\sqrt{33}, 0\right)$

8.



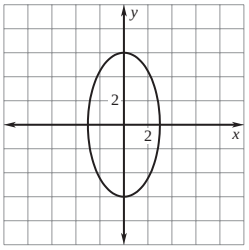
vertices: $(0, \pm 8)$;
co-vertices: $(\pm 2, 0)$;
foci: $\left(0, \pm 2\sqrt{15}\right)$

9.



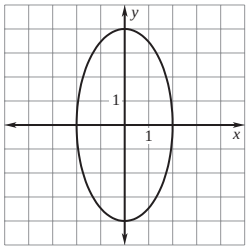
vertices: $(\pm 6, 0)$;
co-vertices: $(0, \pm 2)$;
foci: $\left(\pm 4\sqrt{2}, 0\right)$

10.



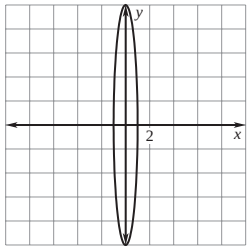
vertices: $(0, \pm 6)$;
co-vertices: $(\pm 3, 0)$;
foci: $\left(0, \pm 3\sqrt{3}\right)$

11.



vertices: $(0, \pm 4)$;
co-vertices: $(\pm 2, 0)$;
foci: $\left(0, \pm 2\sqrt{3}\right)$

12.



vertices: $(0, \pm 10)$;
co-vertices: $(\pm 1, 0)$;
foci: $\left(0, \pm 3\sqrt{11}\right)$

13. $\frac{x^2}{49} + \frac{y^2}{25} = 1$ **14.** $\frac{x^2}{25} + \frac{y^2}{9} = 1$

15. $\frac{x^2}{1} + \frac{y^2}{4} = 1$ **16.** $\frac{x^2}{16} + \frac{y^2}{100} = 1$

17. $\frac{x^2}{64} + \frac{y^2}{36} = 1$ **18.** $\frac{x^2}{9} + \frac{y^2}{8} = 1$

19. $\frac{x^2}{32} + \frac{y^2}{36} = 1$ **20.** $\frac{x^2}{25} + \frac{y^2}{16} = 1$

21. $\frac{x^2}{4} + \frac{y^2}{9} = 1$ **22.** $(3, 0), (-3, 0)$