

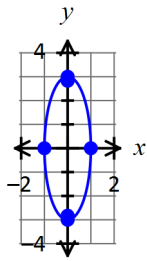
Precalculus

8.3 Odd Answers

1. Center: $(0,0)$

Vertices: $(0,3)$, $(0,-3)$

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



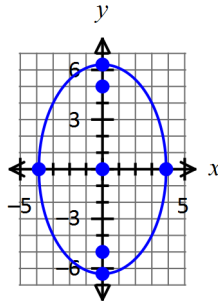
$$13. \frac{x^2}{25} + \frac{y^2}{16} = 1$$

$$15. \frac{(x-2)^2}{16} + \frac{(y-1)^2}{7} = 1$$

3. Center: $(0,0)$

Vertices: $(0,2\sqrt{10})$, $(0,-2\sqrt{10})$

Foci: $(0,5)$, $(0,-5)$



$$17. \frac{(x+3)^2}{40} + \frac{(y+9)^2}{35} = 1$$

19. 10 ft.: 24.65 ft. high

30 ft.: 21.65 ft. high

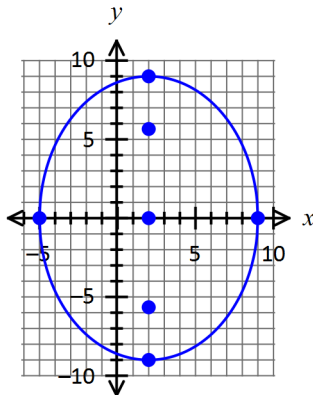
50 ft.: 13.82 ft. high

21. 471.0 in.³

5. Center: $(2,0)$

Vertices: $(2,9)$, $(2,-9)$

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



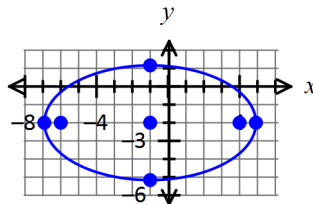
23. perihelion: 91.5 million miles

$$\frac{x^2}{8649} + \frac{y^2}{8646.75} = 1$$

7. Center: $(-1,-2)$

Vertices: $(-1-\sqrt{35},-2)$, $(-1+\sqrt{35},-2)$

Foci: $(-6,-2)$, $(4,-2)$

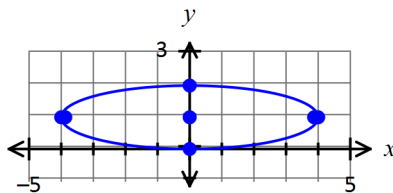


$$9. \frac{x^2}{16} + (y-1)^2 = 1$$

Center: $(0,1)$

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

Foci: $(-\sqrt{15},1)$, $(\sqrt{15},1)$



$$11. \frac{(x+1)^2}{16} + \frac{(y-6)^2}{4} = 1$$

Center: $(-1,6)$

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

Foci: $(-1-2\sqrt{3},6)$, $(-1+2\sqrt{3},6)$

