

Ellipse Practice 2

Use the information provided to write the standard form equation of each ellipse.

- 1) Vertices: (5, 14), (5, -12)
Foci: (5, 6), (5, -4)

$$\frac{(x-5)^2}{144} + \frac{(y-1)^2}{169} = 1$$

- 2) Vertices: (9, 8), (-17, 8)
Foci: (8, 8), (-16, 8)

$$\frac{(x+4)^2}{169} + \frac{(y-8)^2}{25} = 1$$

- 3) Vertices: (10, 20), (10, -4)
Co-vertices: (17, 8), (3, 8)

$$\frac{(x-10)^2}{49} + \frac{(y-8)^2}{144} = 1$$

- 4) Vertices: (6, 5), (6, -25)
Co-vertices: (15, -10), (-3, -10)

$$\frac{(x-6)^2}{81} + \frac{(y+10)^2}{225} = 1$$

- 5) Foci: (7, 9), (7, 1)
Endpoints of major axis: (7, 10), (7, 0)

$$\frac{(x-7)^2}{9} + \frac{(y-5)^2}{25} = 1$$

- 6) Foci: (7, 2), (1, 2)
Endpoints of major axis: (9, 2), (-1, 2)

$$\frac{(x-4)^2}{25} + \frac{(y-2)^2}{16} = 1$$

- 7) Center: (-9, 4)
Vertex: (-14, 4)
Focus: (-12, 4)

$$\frac{(x+9)^2}{25} + \frac{(y-4)^2}{16} = 1$$

- 8) Center: (-7, 4)
Vertex: (-7, -1)
Focus: (-7, 8)

$$\frac{(x+7)^2}{9} + \frac{(y-4)^2}{25} = 1$$