

Find the center, vertices, co-vertices, and foci. Then graph the ellipse.

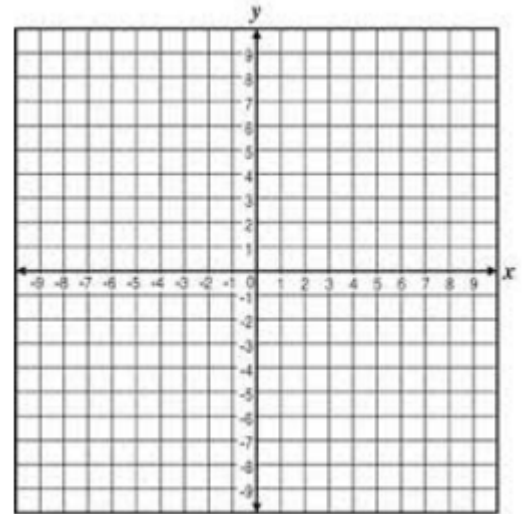
1.) $(x - 5)^2 + \frac{(y - 1)^2}{25} = 1$

Center:

Vertices:

Co-Vertices:

Foci:



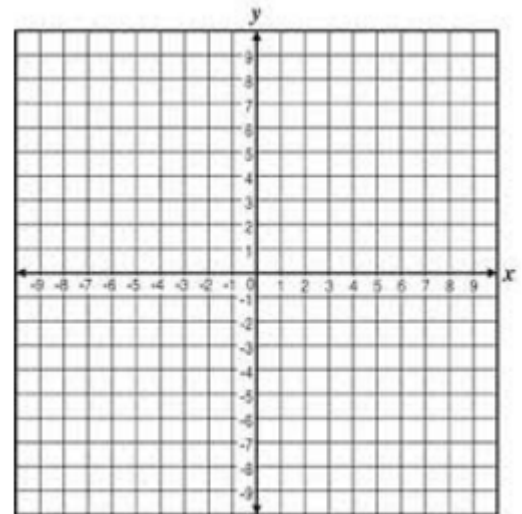
2.) $4(x - 3)^2 + 16(y + 1)^2 = 64$

Center:

Vertices:

Co-Vertices:

Foci:



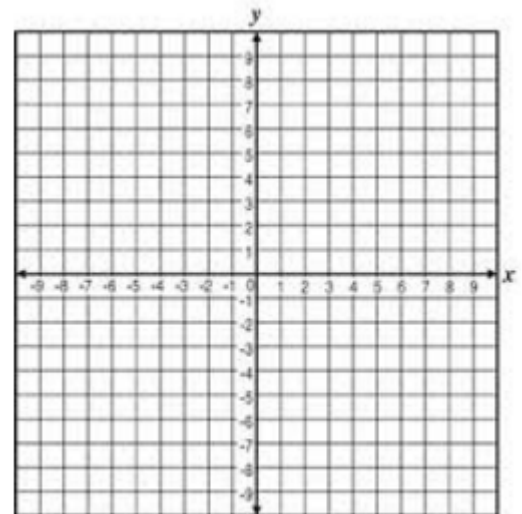
3.) $25x^2 + 49(y + 2)^2 = 1225$

Center:

Vertices:

Co-Vertices:

Foci:



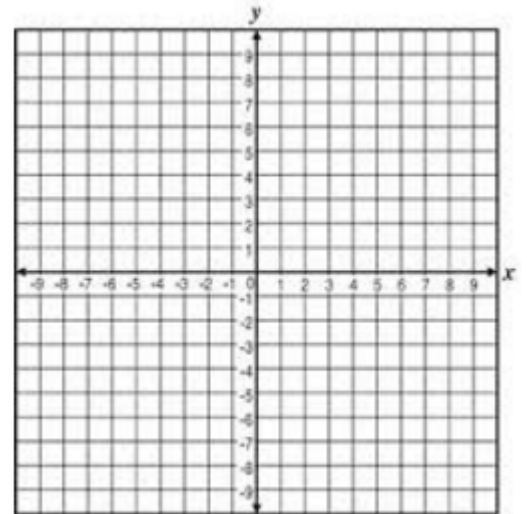
4.) $25(x - 1)^2 + 9(y + 2)^2 = 225$

Center:

Vertices:

Co-Vertices:

Foci:



Write the standard equation of the ellipse with the given information.

5.) Vertices: (3, 19) and (3, -3)
Co-Vertices: (11, 8) and (-5, 8)

6.) Vertices: (11, -4) and (-9, -4)
Co-Vertices: (1, -1) and (1, -7)

7.) Vertices: (2, 7) and (-8, 7)
Foci: (1, 7) and (-7, 7)

8.) Vertices: (-6, 23) and (-6, -3)
Foci: (-6, 22) and (-6, -2)