

Ellipses, Continued

Standard form of an ellipse:

$$\frac{(x - h)^2}{a^2} + \frac{(y - k)^2}{b^2} = 1 \quad \text{or} \quad \frac{(y - k)^2}{a^2} + \frac{(x - h)^2}{b^2} = 1$$

Example #1:**Graph. Identify the center, vertices, co-vertices, foci, domain, and range of the ellipse.**

$$\frac{(x - 1)^2}{225} + \frac{(y + 5)^2}{324} = 1$$

You try: Find the center, vertices, co-vertices, foci, domain, and range of the ellipse.

$$\frac{(x + 3)^2}{81} + \frac{(y - 4)^2}{64} = 1$$