

[27] Foci of $F(0, \pm 2) \Rightarrow c = 2$ and $V(0, \pm 4) \Rightarrow a = 4$. The major axis lies on the y -axis. The value of b is as follows.

$$a^2 - b^2 = c^2 \Rightarrow a^2 - c^2 = b^2 \Rightarrow 4^2 - 2^2 = b^2 \Rightarrow b^2 = 12 \Rightarrow b = \sqrt{12}$$

The equation of the ellipse is $\frac{x^2}{12} + \frac{y^2}{16} = 1$. Its graph is shown in *Figure 27*.

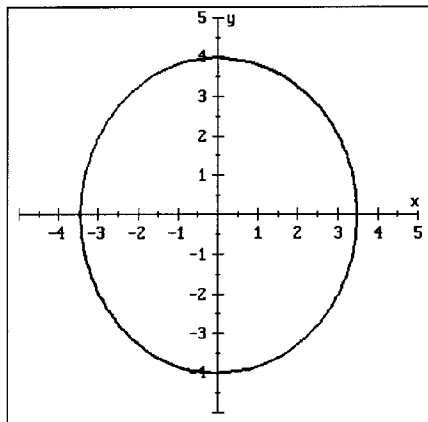


Figure 27