

9-9.2-5

EE24BTECH11036 - Krishna Patil

Question:

Find the area of the region bounded by the ellipse $\frac{x^2}{4} + \frac{y^2}{9} = 1$.

Solution:

using standard equation of ellipse, $a = 2$, $b = 3$

Area of ellipse is given by :

$$\pi ab$$

$$\therefore \text{area} = \pi \cdot 2 \cdot 3$$

$$= 6\pi$$

(1)

(2)

(3)

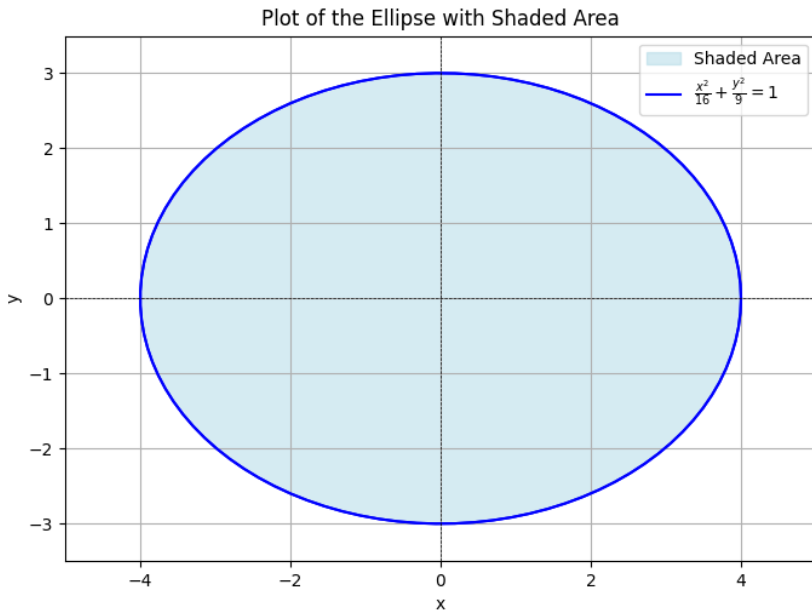


Fig. 1: X-Y plot