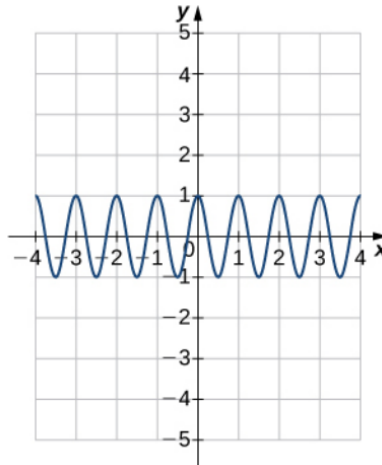


Exercise 165

For the following exercises, each graph is of the form $y = A \sin Bx$ or $y = A \cos Bx$, where $B > 0$. Write the equation of the graph.



Solution

The amplitude is 1, and one cycle is completed in 1 unit. The period is then $B = 2\pi/1 = 2\pi$. Therefore,

$$y = \cos(2\pi x).$$