

Exercise 16

For the following exercises, consider the graph of f shown in Figure 15.

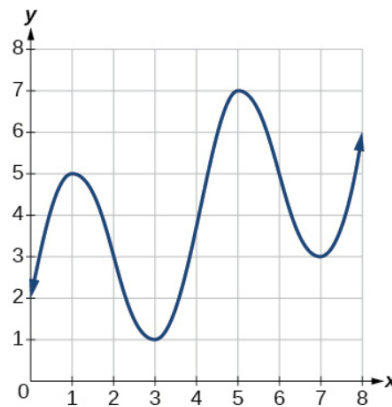


Figure 15

Estimate the average rate of change from $x = 1$ to $x = 4$.

Solution

The average rate of change of the function from $x = 1$ to $x = 4$ is

$$\begin{aligned}\frac{f(4) - f(1)}{4 - 1} &\approx \frac{4 - 5}{3} \\ &\approx \frac{-1}{3} \\ &\approx -\frac{1}{3}.\end{aligned}$$