

Exercise 18

For the following exercises, use the function $h(t) = -16t^2 + 80t$ to find the values.

$$\frac{h(2) - h(1)}{2 - 1}$$

Solution

Plug 2 and 1 into the given formula.

$$\begin{aligned}\frac{h(2) - h(1)}{2 - 1} &= \frac{[-16(2)^2 + 80(2)] - [-16(1)^2 + 80(1)]}{2 - 1} \\ &= \frac{[-16(4) + 160] - [-16(1) + 80]}{1} \\ &= (-64 + 160) - (-16 + 80) \\ &= 96 - 64 \\ &= 32\end{aligned}$$