

Exercise 1

Terry is skiing down a steep hill. Terry's elevation, $E(t)$, in feet after t seconds is given by $E(t) = 3000 - 70t$. Write a complete sentence describing Terry's starting elevation and how it is changing over time.

Solution

Plug in $t = 0$ to see what Terry's height is initially.

$$E(0) = 3000 - 70(0) = 3000$$

The coefficient of t represents the rate at which Terry's height is changing. Therefore, Terry starts at 3000 feet and descends 70 feet every second.