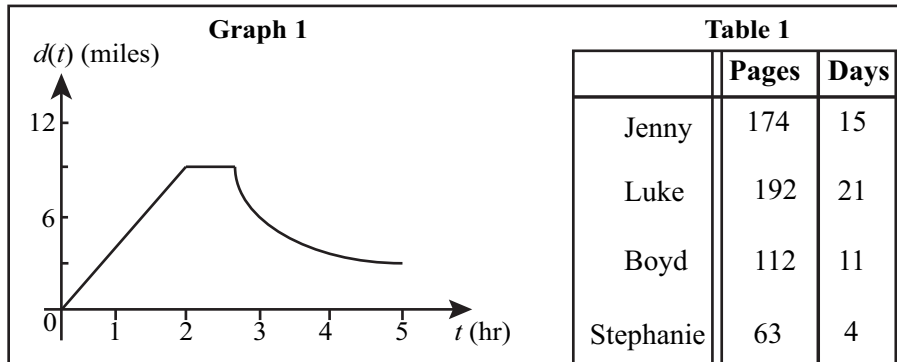


Functions Worksheet 3



- Jenny, Luke, Boyd and Stephanie had a reading competition over the summer (refer to Table 1). Who read the most?
- Referring to Table 1, who read the fastest and determine the rate.
- Referring to Graph 1, find the average rate of change for $0 \leq t \leq 2$.
- Draw a line in Graph1 whose slope represents the speed at $t = 4$ hr.
- If it rains 2 inches on Monday and it increases to 4 inches by Friday, what is the rate of increase in many inches per day?
- Calculate the average rate of change of $f(x) = 4x^2 + 3x + 5$ between $x = 2$ and $x = 5$, as a function of x .
- Calculate the average rate of change of $g(x) = \frac{1}{x} - x^2$ between $x = -2$ and $x = 3$, as a function of x .
- If, after 2.5 hours of driving at a constant speed, you have traveled 175 miles, what is the rate of change of your distance d over time?
- Referring to problem 7, if you increase your speed by 5%, how far will you travel in the next 2.5 hours?
- If your speed s increased from 30 miles per hour to 35 miles per hour over 30 seconds, what is the rate of change of your speed?