## Functions Worksheet 3



1. Jenny, Luke, Boyd and Stephanie had a reading competition over the summer (refer to Table 1). Who read the most?
2. Referring to Table 1, who read the fastest and determine the rate.
3. Referring to Graph 1 , find the average rate of change for $0 \leq t \leq 2$.
4. Draw a line in Graph1 whose slope represents the speed at $t=4 \mathrm{hr}$.
5. 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?
6. Calculate the average rate of change of $f(x)=4 x^{2}+3 x+5$ between $x=2$
and $x=5$, as a function of $x$.
7. Calculate the average rate of change of $g(x)=\frac{1}{x}-x^{2}$ between $x=-2$ and $x=3$, as a function of $x$.
8. 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?
9. Referring to problem 7, if you increase your speed by $5 \%$, how far will you travel in the next 2.5 hours?
10. 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?
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