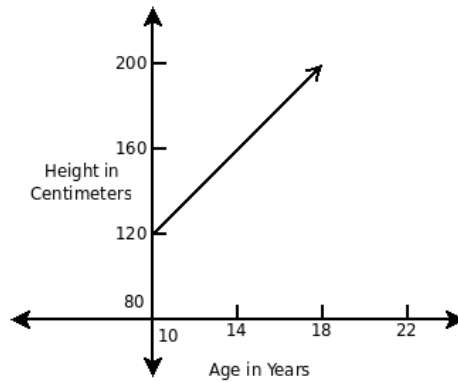
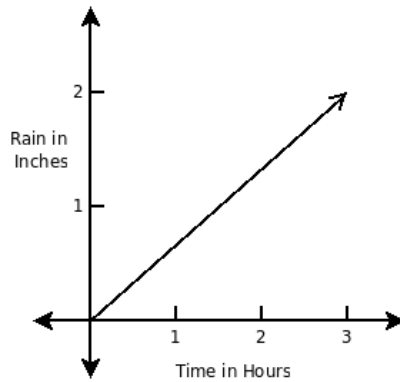


Homework 8

1. Sketch a graph for each of the following functions. I haven't given you any data – guess whether it's growing exponentially or linearly and do your best!
 - (a) The price of milk over the next ten years.
 - (b) The distance you've driven during your road trip to Denver (suppose you do it with no breaks).
 - (c) The population of the Earth over the next 200 years.
2. My friend Mitch just deposited \$1000 in an account at 10% APR compounded monthly. Use a table of values to graph the amount of money in Mitch's account for the next ten years. Is it growing exponentially, or linearly? (You already know the answer to this, but it's nice to see it yourself!)
3. DO Section 9B, problems 21-26, parts a & b.
4. For each of the following graphs:
 - Describe in words the function shown on the graph
 - Find the slope of the function and **include units!**



5. Mitch just used the money from his aforementioned bank account to purchase an ant farm. He has carefully measured the number of ants in his colony over the past year, and come up with the following data:

Month	Ants
0	1000
1	1530
2	1950
3	2510
4	3112
5	3425
6	3950
7	4592

Draw a line of best fit. About how many ants is he gaining every month?