Algebra and Representation HW #12
Graphical Representations of Functions

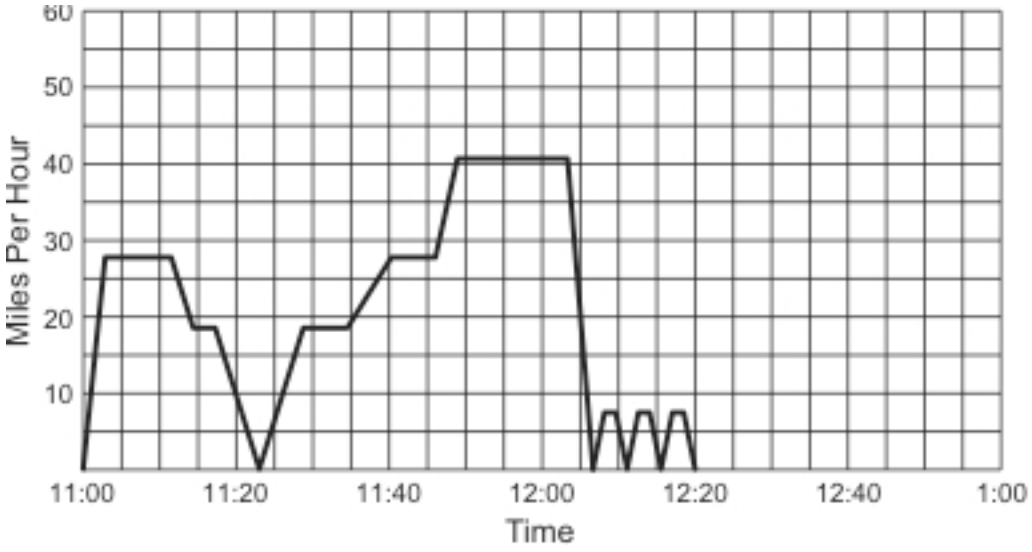
1. Draw the graphs of the following functions, each on a separate graph:
   a.

x	0	3	6	9
$f(x)$	0	1	2	3

   b. $g(x) = 3x$ for all **counting numbers** x less than 10

   c. $h(x) = 3x$ for all **real numbers** x between 0 and 10 (inclusive).

2. Below is a graph of Mr. Carter's trip between 11:00 AM and 12:20 PM yesterday. Answer the following three questions about his trip.
   a. How fast was Mr. Carter going between 11:50 and 12:00 noon?
   b. At what time(s) was Mr. Carter stopped?
   c. Between 12:03 and 12:07, what might have happened to Mr. Carter? Explain your answer with reference to the graph below.



3. Sketch a graph of the **distance driven** (as an odometer would record it) as a function of **time** for the following trip: I first accelerate to 35 miles per hour and then drive for 10 minutes. I then come to a stop sign and make a legal, **complete**, stop. Next, I accelerate back up to 35 miles per hour for another 10 minutes. I stop and realize that I forgot to turn off the water in the bath tub so I turn around and head home at 35 miles per hour (avoiding all lights and stop signs) until I return home.