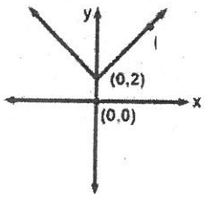
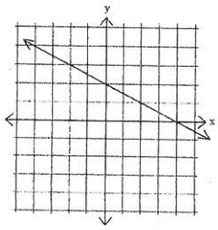
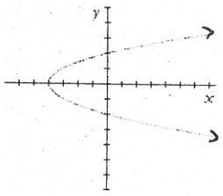
7.5-6 RWS

Mathematician: _____

#1-3, Given the information determine whether or not the relationship is a function. Yes or no?

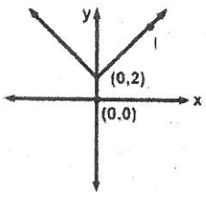
1. 

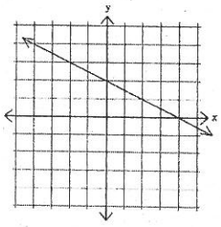
2. 

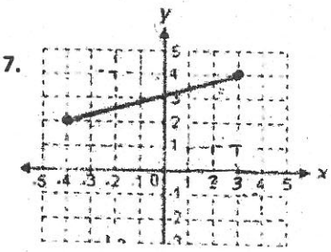
3. 

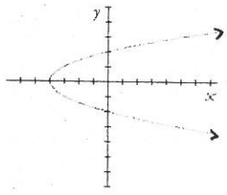
4. Give a list of 5 coordinates that *would not* qualify as a function.

#5-8, Determine the domain and range of each relationship.

5. 

6. 

7. 

8. 

#9-12, Use the functions below to evaluate each.

$f(x) = x^2 + 3$ $\quad$ $g(x) = -x + 1$ $\quad$ $h(x) = x^2 + 2x - 3$

9. *f(5)*

10. *h(-1)*

11. g (-5)

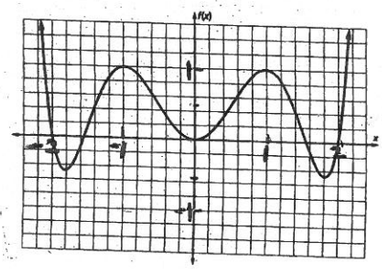
12. *f (10)*

13. Use your graphing calculator.
What is the domain and range of the function $f(x) = 3x^2 + 5$

14. **Use the graph at right to answer**

a. Give two values of x for which *f(x) = 1*

b. Find *f(2)*



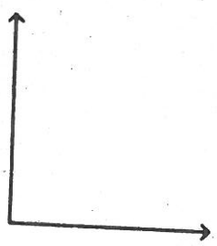
15. The south gym is a steady 68ºF (room temp). Hawk fans begin entering the gym for a pep assembly and steadily heat the space. When the assembly ends, 45 minutes later, the gym is 77º. The gym slowly cools back to room temperature over the next 2 hours.

a. Graph this scenario with time on horizontal axis and temperature on vertical.

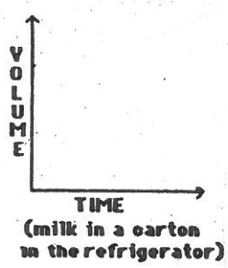
b. Is the temperature of the gym a function of time?
(i.e. could you predict the temperature based on the time)

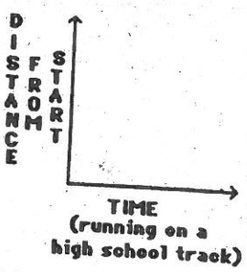
c. Is the time a function of the temperature?
(i.e. could you predict the time based on the temperature)

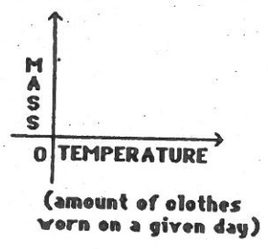
d. What is the range of this graph?

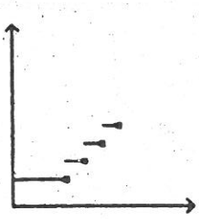


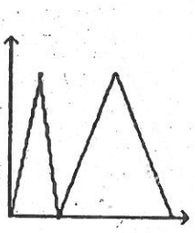
#16-18, Multiple Choice: match the description on axes above to its correct graph shape below.

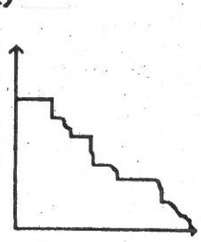
16. 

17. 

18. 

a. 

b. 

c. 

d.