P.S. #8.4 - Comparing Functions Day 2

Name: _____ Class: _____

1.) Which function has a greater rate of change?

x	0	3	6	9
y	1	5	9	13

$$y = 1.5x + 2$$

2.) Which function has a greater rate of change?

x	2	4	6	8
y	5.5	11	16.5	22

$$0.2x = 0.5y + 0.1$$

3.) Which function has a greater rate of change?

x	0	2	4	6
y	-4	6	16	26

$$\frac{1}{8}y = \frac{1}{2}x - \frac{3}{4}$$

4.) The functions below represent pricing plans for car rentals, where d is the number of days and c is the cost. Order the car rentals from least to greatest based on their rate of change.

Hertz

$$7d - 0.25c = -10$$

Enterprise

Total cost is $30 plus $25 per day

Avis

d	2	3	7	144
c	100	130	250	460

5.) Which of the tables show a linear relationship? How do you know?

Write an equation for the table that represents a linear relationship.

Table A

x	y
-6	7
-3	5
0	3
3	1
6	-1
9	-3

Table B

x	y
-2	0
-1	-4
0	-6
1	-6
2	-4
3	0

6.) The table shown represents a linear function.

a.) Find the slope and the y-intercept of the function.
(6 points)

x	y
-2	-1
1	11
4	23
7	35

b.) Which equation has a greater slope and a greater y-intercept than the linear function shown in the table? **(4 points)**

(A) $y = 3x + 10$

(B) $y = 4x + 7$

(C) $y = 7x + 6$

(D) $y = 6x + 8$

Explanation:

Solve and check the following equations:

7.) $\frac{2}{3}\left(9b - 27\right) = 36$

8.) $3 - \frac{2}{9}b = \frac{1}{3}b - 7$