$\qquad$ Period:
HW 3-5: Compare Properties of Functions
EXPLAIN all your answers using specific values.

Score: $\qquad$ $=$
$\qquad$ $\%=$ $\qquad$

1. Which function has the least slope?
2. Which function has the greatest $y$-intercept?

$\qquad$
3. Which function has the greatest slope?
4. Which function has the greatest $y$-intercept?

Function A

$$
y=2 x-3
$$


5. Which function has the greatest slope?
6. Which function has the greatest $y$-intercept?

Function A

| $\mathbf{X}$ | -2 | 0 | 2 | 4 |
| :---: | :---: | :---: | :---: | :---: |
| $\mathbf{y}$ | 0 | 3 | 6 | 9 |

$$
y=3 x+4
$$

Your buddy went river rafting last summer from a company that offered various costs represented by the graph below.
7. Which situation cost less if your buddy rafted 10 miles?
8. Which situation cost less if your buddy rafted 30 miles?
9. Which situation cost less if your buddy rafted 50 miles?


You've got to pay a mechanic to get your speed boat fixed and there are two mechanics in town. Their prices are represented below where $x$ is the number of hours it takes and $y$ is the cost.
"I Only Fix Red Cars" Auto Repair

10. Which shop costs less for a 10 hour repair?
11. Which shop costs less for a 20 hour repair?
12. Which shop costs less for a 70 hour repair?

Mascara is on sale at two different stores. The prices are represented in the tables below where $x$ is the number of mascara tubes and $y$ is the cost in dollars.

All Up In Ur Face

| $\mathbf{X}$ | 0 | 3 | 6 | 9 |
| :---: | :---: | :---: | :---: | :---: |
| $\mathbf{y}$ | 0 | 45 | 90 | 135 |


| $X$ | 0 | 2 | 4 | 6 |
| :---: | :---: | :---: | :---: | :---: |
| $y$ | 0 | 160 | 320 | 480 |

13. Which store has the best deal if you want to buy five tubes of mascara?
14. Which store has the best deal if you want to buy one tube of mascara?

There are many amusement parks in Orlando, Florida. Galaxial Studios attracts many customers because of their price points. Continents of Adventure is competitive and very nearby. The park prices are represented below where $x$ is the number of rides you get and $y$ is the number of dollars you spend.

Galaxial Studios


## Continents of Adventure

| $\mathbf{X}$ | 0 | 5 | 10 | 15 |
| :---: | :---: | :---: | :---: | :---: |
| $\mathbf{y}$ | 0 | 10 | 20 | 30 |

15. Which amusement park should you attend if you plan on riding ten rides?
16. Which amusement park should you attend if you plan on riding forty rides?

You and your friend start walking but your friend has a 1 mile head start. How long does it take you to catch up to your friend if $x$ is the number of hours you've walked and $y$ is the number of miles?

| You |
| :--- |
| $\mathbf{x}$ |
| $\mathbf{y}$ |
| 0 |$| 1 \quad 2.5$


17. How long will it take you to catch up to your friend?

