Name_____ Date _____ Period_____

Concept of Functions Worksheet 1

(!)T3— 8.F.2 - Compare the properties of two linear functions represented in different ways	**Score** _____

Use the following information to compare the four functions.
A rate of change is a rate that describes how one quantity changes in relation to another.

Level 2.0, Include the negatives on this section.

Function A

$y = \frac{-7}{2}x + 12$

What is the rate of change?

What is the y-intercept (initial value)?

Function B

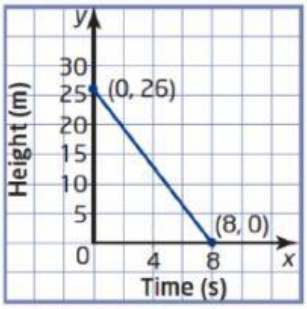
Drake rented a car from city rents, he paid an upfront fee of $30 and $62 a per day.

What is the rate of change?

What is the y-intercept (initial value)?

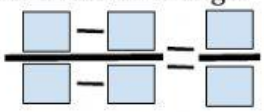
Function C

The graph shows the height above the ground of a rock climber over time.



Use the boxes below to find the rate of change.

$$\frac{\text{Change in y}}{\text{Change in x}} = \frac{y_2 - y_1}{x_2 - x_1}$$



What is the y-intercept (initial value)?

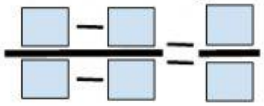
Function D

The table shows the number of textbooks in relation to the number of students.

Students	Number of Textbooks
5	15
10	30
15	45
20	60

Use the boxes below to find the rate of change.

$$\frac{\text{Change in y}}{\text{Change in x}} = \frac{y_2 - y_1}{x_2 - x_1}$$



What is the y-intercept (initial value)?
Think, how many books are sold to zero students?

Level 3.0 Write the answer as FunctionG, use capitals, no spaces. Don't include any negatives.

a. Put the functions in order from least to greatest by rate of change.

Least 1 _____

2 _____

3 _____

Greatest 4 _____

b. Put the functions in order from least to greatest by y-intercept (initial value).

Least 1 _____

2 _____

3 _____

Greatest 4 _____