Name: Date:
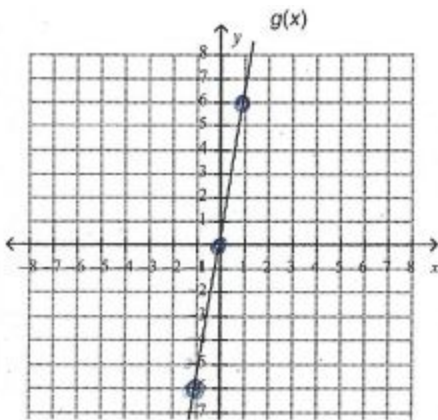
Understand how to compare two linear functions (i.e. rate of change, etc.) (algebraically, graphically, numerically in tables, or by verbal description).

1) Find and compare the slopes and y-intercepts for the linear functions.

$f(x) = 3x + 5$

x	0	1	2	3
g(x)	2	4	6	8

2) Find and compare the slopes and y-intercepts for the linear functions.

g(x)

x	−1	0	1	2
f(x)	−6	−2	2	6

3) Conor and Sheila are rock climbing. They are climbing down a canyon wall. Conor starts from a cliff that is 200 feet above the canyon floor and climbs down at an average speed of 10 ft/minute. Sheila climbs down the canyon wall as shown in the table.

Time (min)	0	1	2	3
Sheila's height (ft)	242	234	226	218

Interpret the rates of change of the linear functions in terms of the situations they model. Compare the two.

4) Find and compare the slopes and y-intercepts for the linear functions.

$f(x) = -x - 2$

x	−1	0	1	2
g(x)	4	1	−2	−5

5) Marcus starts the quarter off with $250 in his lunch account, and Ariel starts the quarter off with $150 in her lunch account. Marcus spends $23.75 a week for 10 weeks. Ariel's lunch account balances are shown in the table.

Week	1	2	3	4	5	6	7	8	9	10
Ariel's acct. balance	133.75	117.50	101.25	85	68.75	52.50	36.25	20	3.75	-12.50

Interpret the rates of change of the linear functions in terms of the situations they model. Compare the two.

6) Mary has a job at McDonalds and she gets paid $7.25 per hour. The ordered pairs below represent how much Bill gets paid at his job at Olympia Sports. Determine who gets paid more per hour.

(1, 9.25) (2, 18.50)

7) Mrs. Woods gives her students two options for extra credit points. Option A begins with 5 points and receive two points for each bonus task that they complete. Option B begins with 1 point and and receive 3 points for each bonus task that they complete. Write each option as a linear equation. Which option passes through the point (5, 16)?