

Comparing Functions Homework

Name: Key

Find the rate of change for each person. Answer the question(s) listed below by comparing functions.

1. Below are representations of CJ, Holland, and Brandon's speed as they run a race.

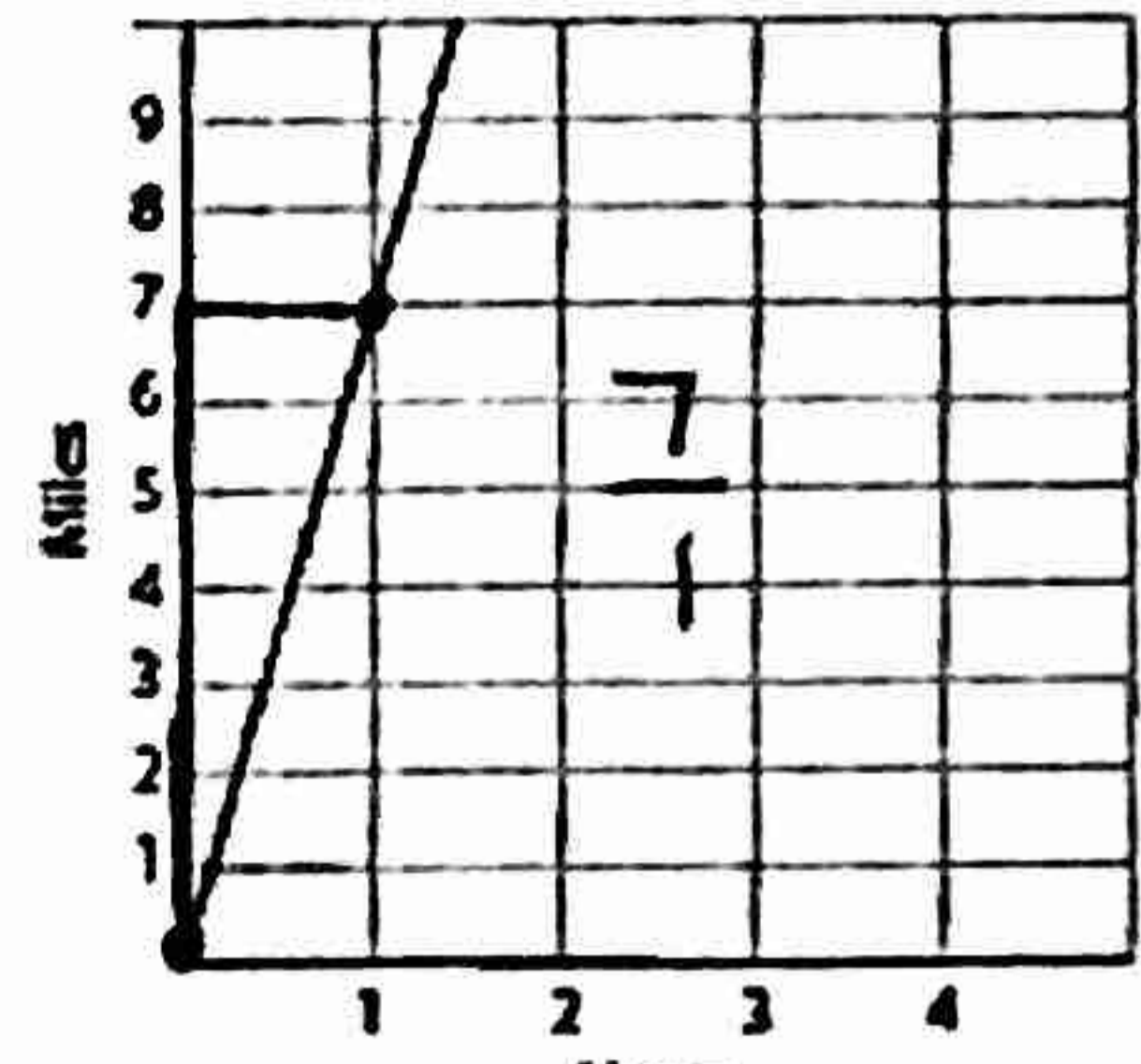
CJ:

x (hours)	y (miles)
0	0
2	13
4	26
6	39

$\frac{13}{2}$

Holland: $y = 6x$

Brandon:



Rate of Change: 6.5 mph Rate of Change: 6 mph Rate of Change: 7 mph

a. Who is the faster runner in the race? Brandon

2. Below are representations of Smith's, Harmon's, and Macey's price on hamburger.

Smith's:

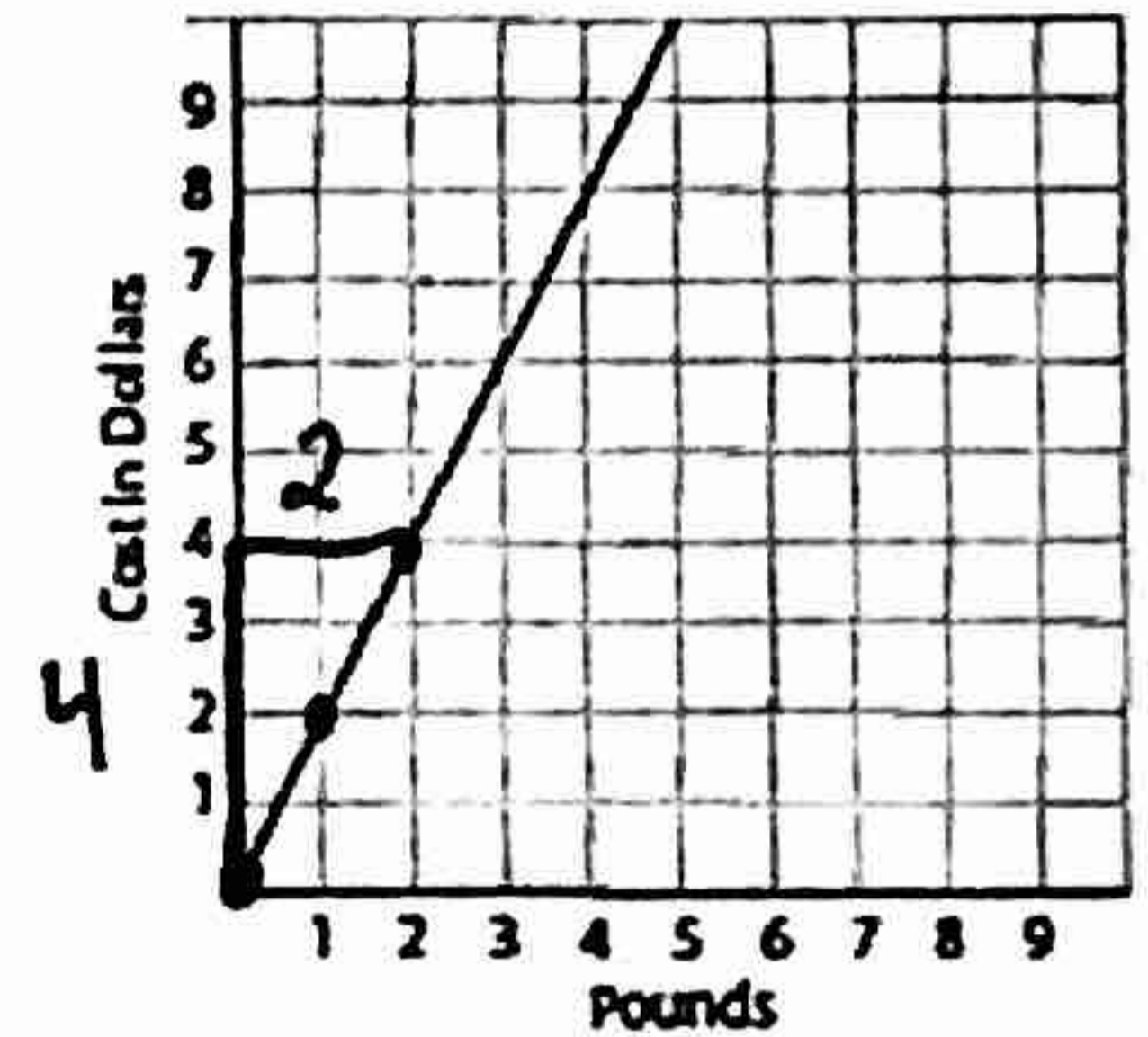
x (pounds)	y (dollars)
0	0
4	5
8	10
12	15

$\frac{5}{4}$

Harmon's: $y = \frac{7}{2}x$

Macey's:

$\frac{7}{2} = 3.5$



$\frac{4}{2} = 2$

Rate of Change: \$1.25 per pound Rate of Change: \$3.50 per pound Rate of Change: \$2.00 per pound

a. Who has the cheapest hamburger? Smith's

3. Below are representations of Jackson, Katie, and Christen's text message usage.

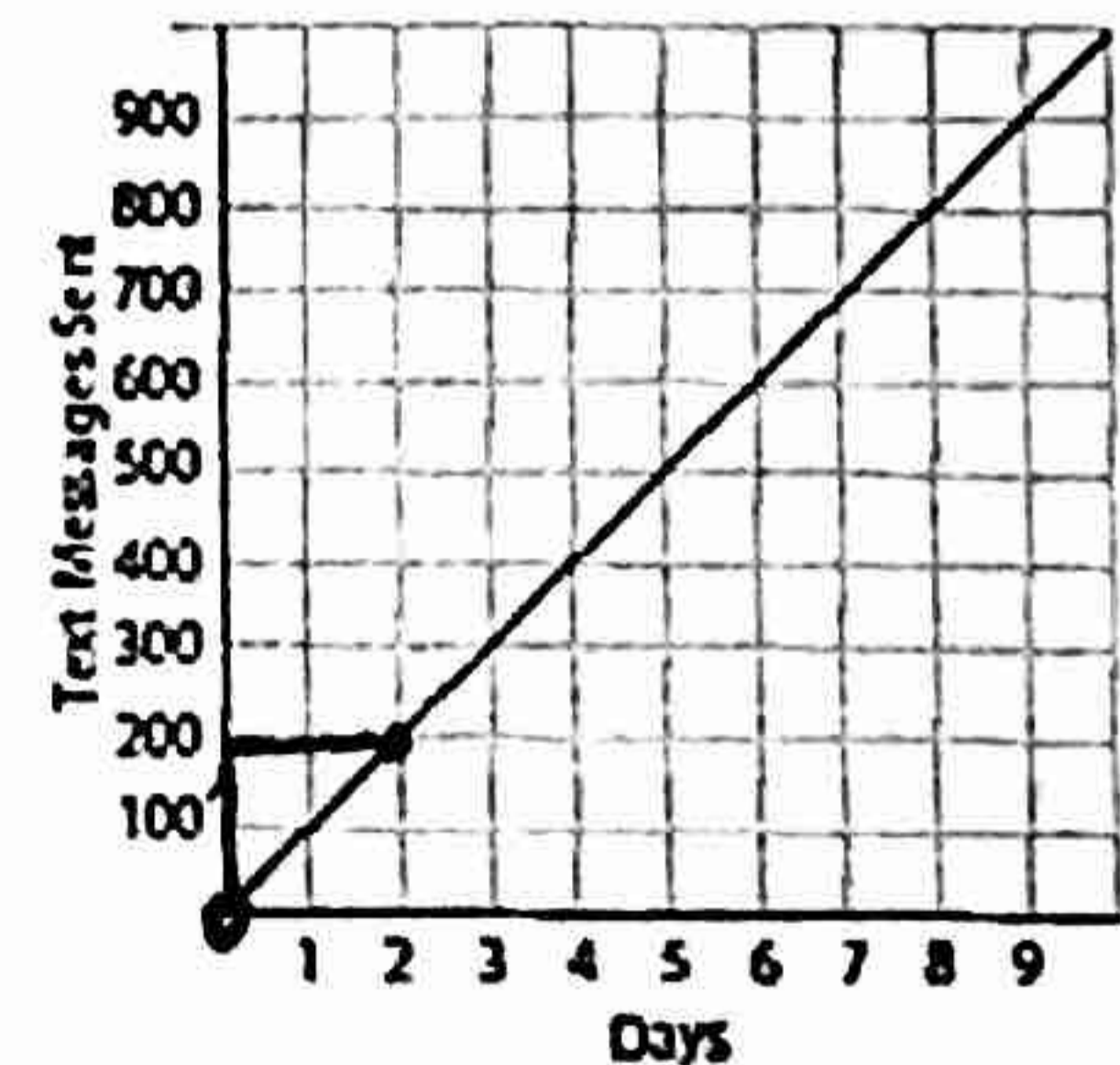
Jackson:

x (days)	y (texts)
0	0
0.5	75
1	150
1.5	225

$\frac{75}{.5}$

Katie: $y = 160x$

Christen:



$\frac{200}{2} = 100$

Rate of Change: 125 texts per day Rate of Change: 160 texts per day Rate of Change: 100 texts per day

a. Who sends the most amount of text messages per day? Katie

b. Who sends the least amount of text messages per day? Christen

4.

Below are representations of Dennis, Myriah, and Kameron's cost to rent a car.

Dennis:

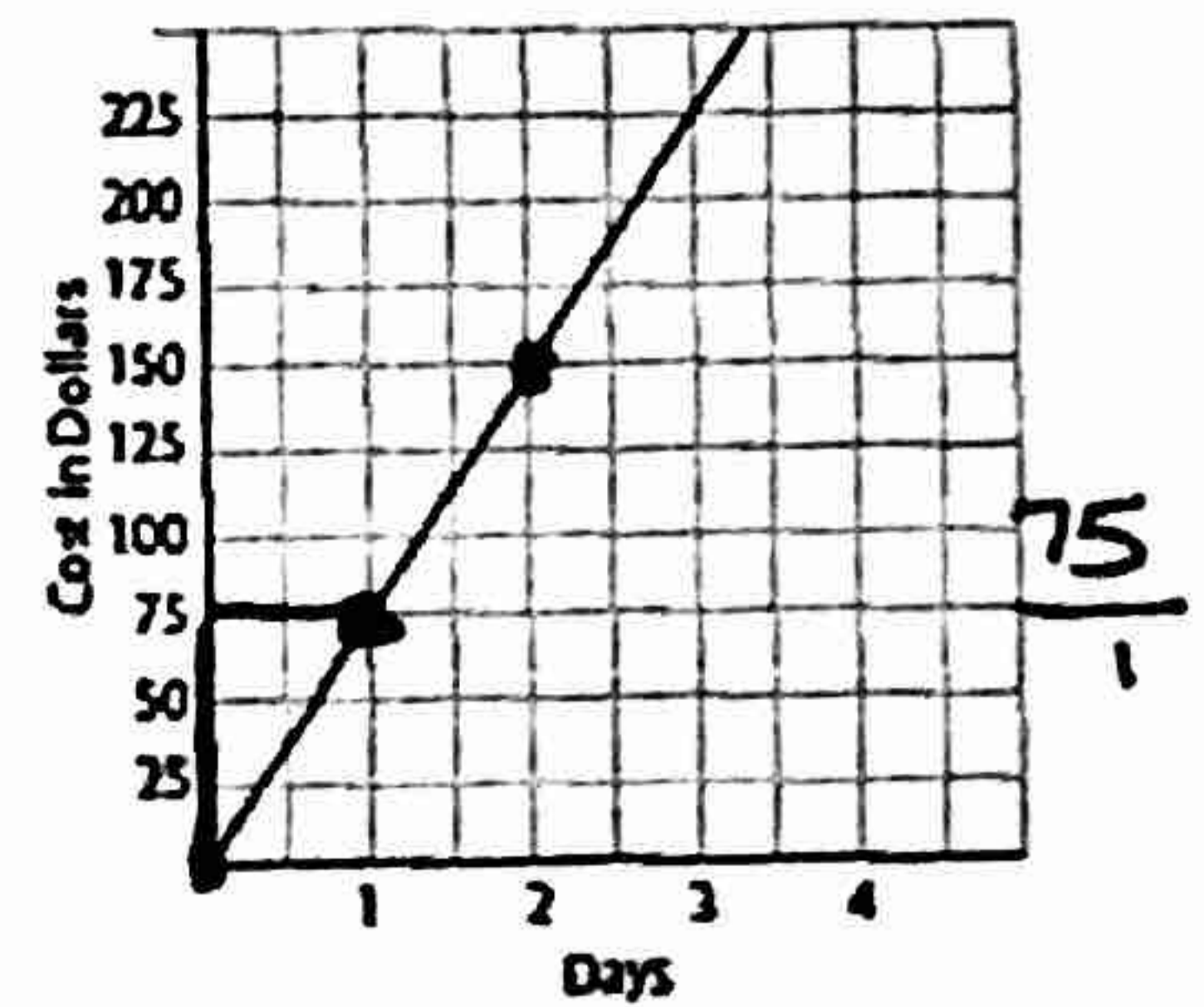
x (days)	y (cost)
0	0
1	78
2	156
3	234

$\frac{78}{1}$

Myriah: $y = 78x$

$$\frac{78}{1}$$

Kameron:



Rate of Change: \$78 per day Rate of Change: \$78 per day Rate of Change: \$75 per day

- a. Who pays the most per day to rent a car? Dennis & Myriah
- b. Who pays the least per day to rent a car? Kameron

5.

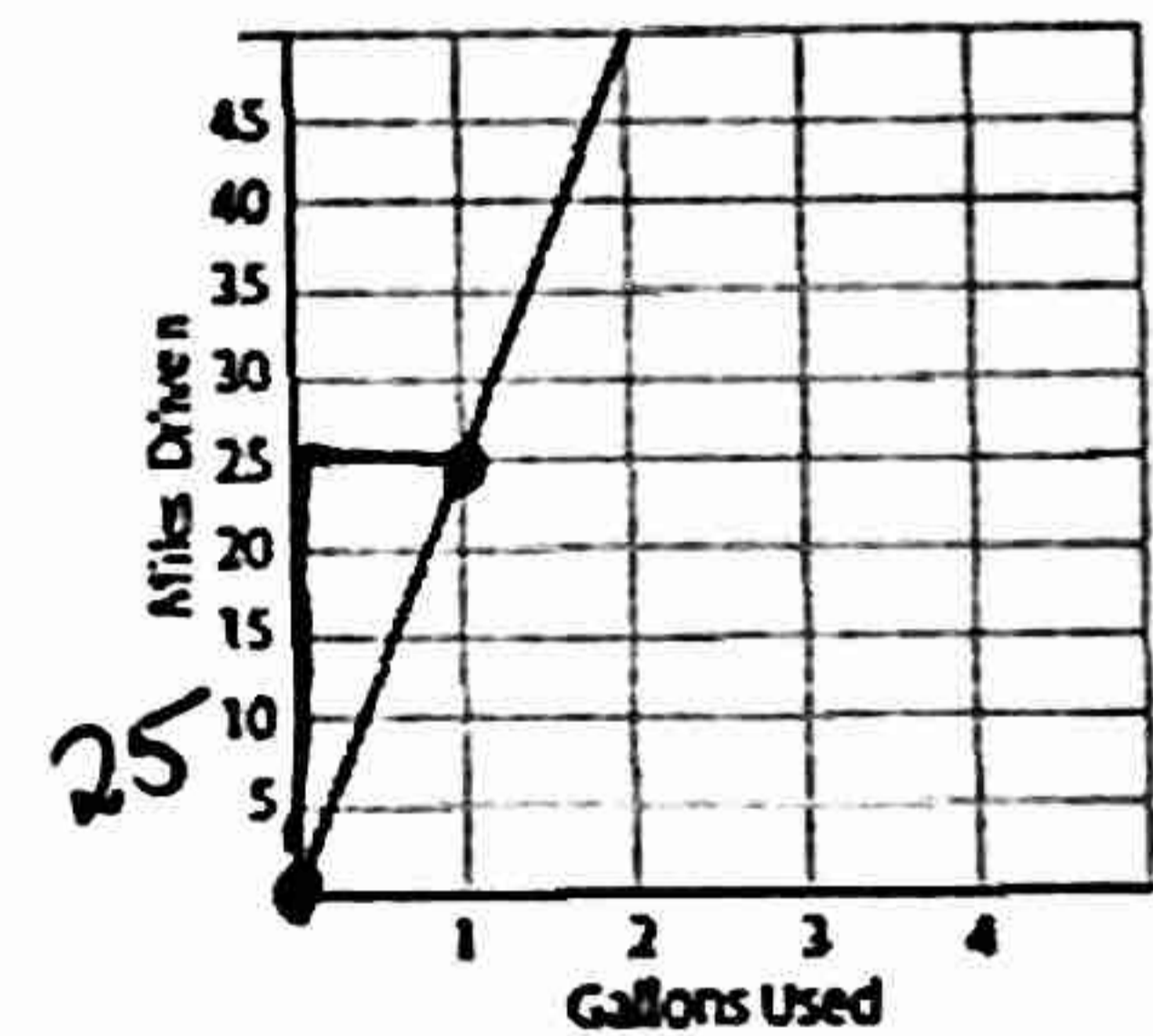
Below are representations of Jesse, Troy and Lucy's usage of gas.

Jesse:

x (gallons)	y (miles)
0	0
1	29
2	58
3	87

Troy: $y = 28x$

Lucy:



Rate of Change: 29 miles per gallon Rate of Change: 28 miles per gallon Rate of Change: 25 miles per gallon

- a. Who has the best miles per gallon usage? Jesse

6.

Below are representations of Braden, Omar and Malika's speed as they read.

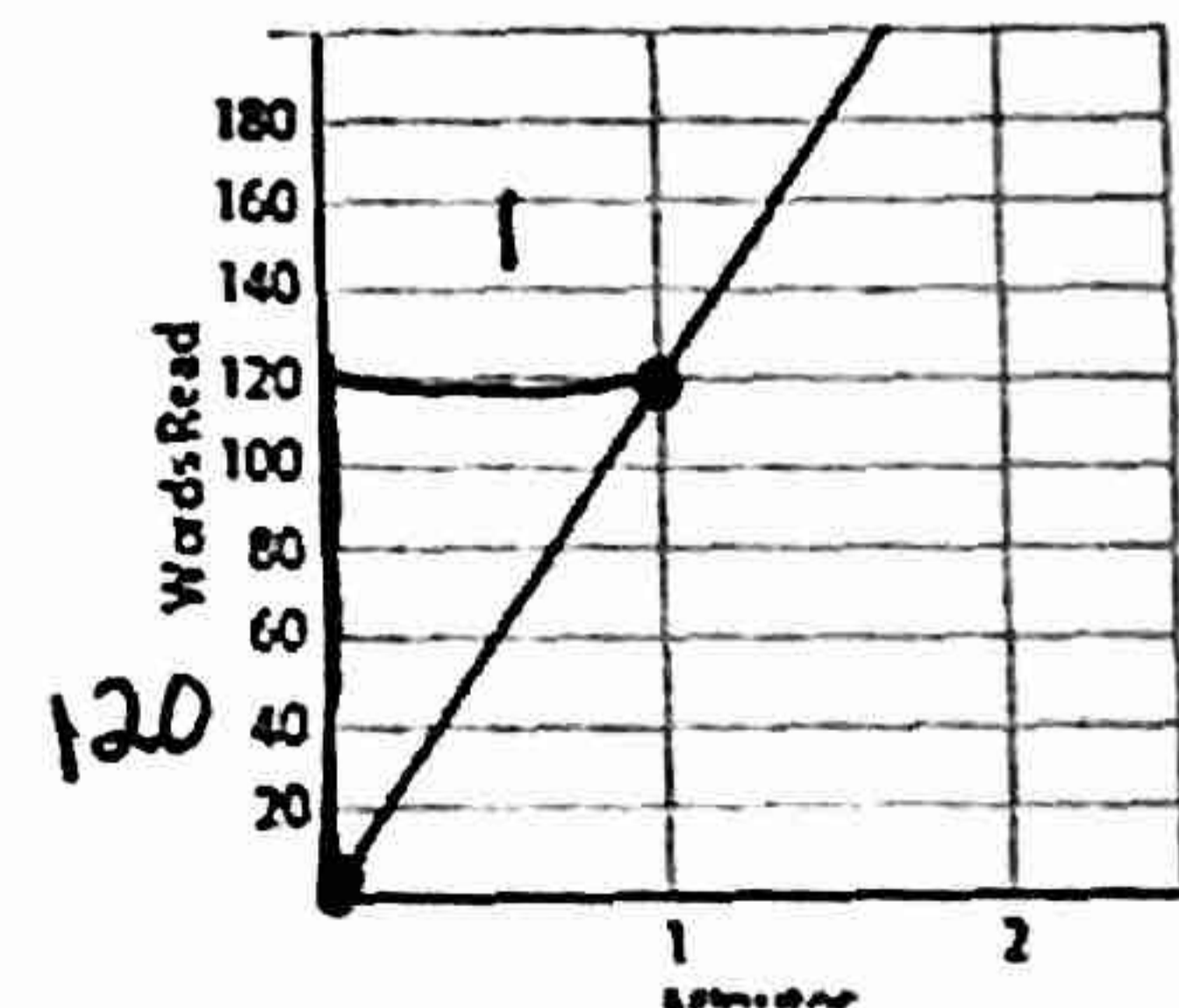
Braden:

x (minutes)	y (words)
0	0
3	180
6	360
9	540

$$\frac{180}{3} = 60$$

Omar: $y = 100x$

Malika:



Rate of Change: 60 words per minute Rate of Change: 100 words per minute Rate of Change: 120 words per min.

- a. Who is the quickest reader? Malika