

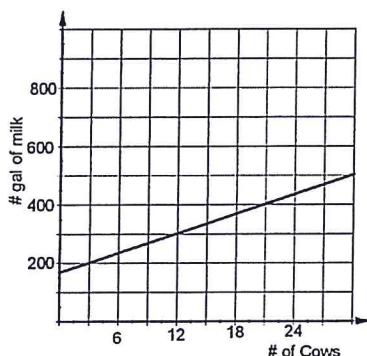
Algebra 1 Bellwork Thursday, January 7, 2016

1. Find the rate of change. Give your answer as a decimal rounded to the nearest tenth and include units on your answer.

a.

Gallons	Miles
3	127
5	211
8	337
12	505

b.



2. Find the slope of the line that passes through each pair of points.

a) $(-8, 13)$ & $(-8, -12)$

b) $(\frac{1}{6}, 3)$ & $(\frac{8}{6}, 12)$

3. A line passes through these two points: $(4, -3)$ & $(-2, 9)$

a) Find the slope of this line.

b) Write the equation of the line in Point-Slope Form

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ANSWERS

1. Find the rate of change. Give your answer as a decimal rounded to the nearest tenth and include units on your answer.

a.

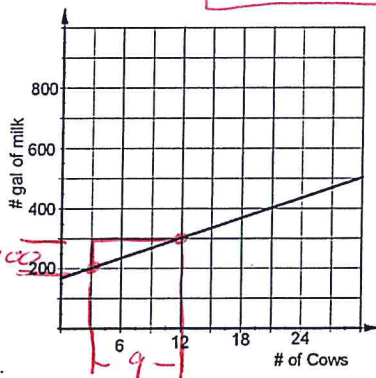
$$\frac{84 \text{ mi}}{2 \text{ gal}} = 42 \frac{\text{mi}}{\text{gal}}$$

Gallons	Miles
3	127
5	211
8	337
12	505

$$211 - 127 = 84$$

b.

$$11.1 \text{ gal/cow}$$



$$\Delta y = 100 \text{ gal}$$

$$\Delta x = 9 \text{ cows}$$

$$\text{Rate of change} = \frac{100 \text{ gal}}{9 \text{ cows}}$$

2. Find the slope of the line that passes through each pair of points.

a) $(-8, 13)$ & $(-8, -12)$

b) $(\frac{1}{6}, 3)$ & $(\frac{8}{6}, 12)$

$$m = \frac{13 - (-12)}{-8 - (-8)} = \frac{25}{0}$$

UNDEFINED

$$\frac{12 - 3}{\frac{8}{6} - \frac{1}{6}} = \frac{9}{\frac{7}{6}} = 9 \cdot \frac{6}{7}$$

$$m = \frac{54}{7}$$

3. A line passes through these two points: $(4, -3)$ & $(-2, 9)$

a) Find the slope of this line.

b) Write the equation of the line in Point-Slope Form

$$m = \frac{9 - (-3)}{-2 - 4} = \frac{12}{-6} = -2$$

$$y + 3 = -2(x - 4)$$

or

$$y - 9 = -2(x + 2)$$