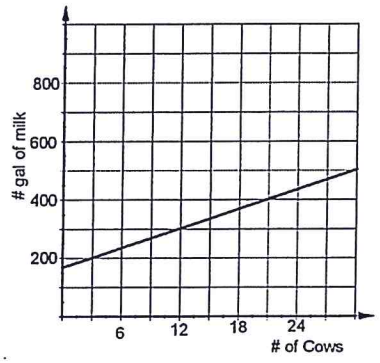
Algebra 1 Bellwork Thursday, January 7, 2016

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

Algebra 1 Bellwork Thursday, January 7, 2016 ANSWERS

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

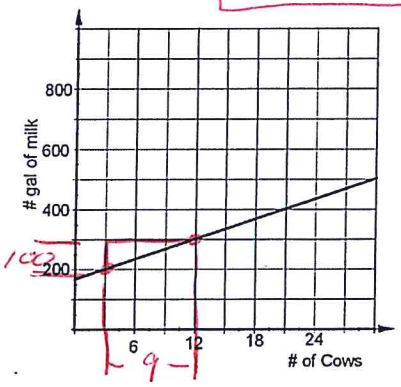
a. $\frac{84 \text{ mi}}{2 \text{ gal}} = \frac{42 \text{ mi}}{\text{gal}}$

b. 11.1 gal/cow

Gallons	Miles
3	127
5	211
8	337
12	505

5-3 = 2

211-127 = 84



$\Delta y = 100$ gal

$\Delta x = 9$ cows

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

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