

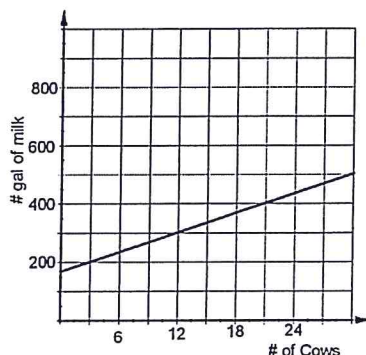
Algebra 1 6th Bellwork Thursday, January 14, 2016

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) $(5, 3)$ & $(-4, 15)$

c) $(11, 2)$ & $(-3, 2)$

d) $(7, -8)$ & $(4, 7)$

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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.

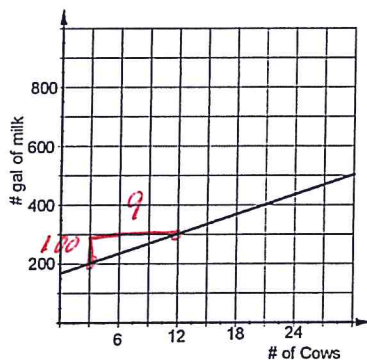
a.

$$\frac{\Delta y}{\Delta x} = \frac{211 - 127}{5 - 3} = \frac{84}{2} = 42$$

Gallons	Miles
3	127
5	211
8	337
12	505

$42 \frac{\text{mi}}{\text{gal}}$

b.



$$\frac{\Delta y}{\Delta x} = \frac{100 \text{ gal}}{9 \text{ cows}} = 11.1 \frac{\text{gal}}{\text{cow}}$$

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

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

b) $(5, 3)$ & $(-4, 15)$

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

Undefined

$$m = \frac{15 - 3}{-4 - 5} = \frac{12}{-9} = -\frac{4}{3}$$

c) $(11, 2)$ & $(-3, 2)$

d) $(7, -8)$ & $(4, 7)$

$$m = \frac{2 - 2}{11 - (-3)} = \frac{0}{14} = 0$$

$$m = \frac{7 - (-8)}{4 - 7} = \frac{15}{-3} = -5$$