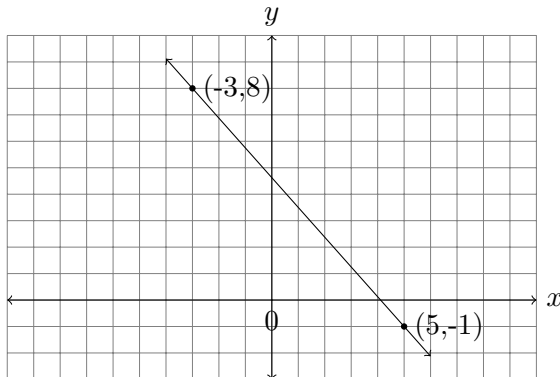


## COLLEGE ALGEBRA QUIZ

- (1) Determine the slope of the line given two points on the line.



**Solution:**

$$m = \frac{-9}{8}$$

- (2) The annual per-capita consumption of fresh oranges in the United States was 16.4 pounds in 1965. Then in 2001 it decreased to 12.3 pounds. What is the average rate of change in per-capita consumption from 1965 to 2001.

**Solution:**

**-0.11 pounds per year.**

- (3) Find the slope and the y-intercept of the line, given its equation.

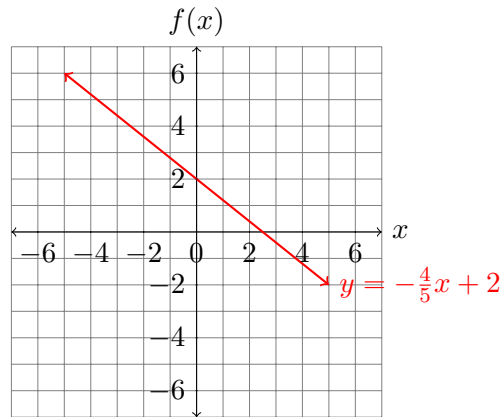
$$f(x) = 5x - 2.$$

**Solution:**

**Slope is  $m = 5$ , y-intercept is at  $(0, b) = (0, -2)$**

- (4) Graph the equation,  $4x + 5y = 10$ , by using the slope and the y-intercept.

Solution:



- (5) The Gym of Alaska, charges a new membership set up fee of \$25 then \$250 per month for their premium family plan. Find a function,  $C(m)$  which represents the total cost of this gym membership for  $m$  months? How much would a member have spent after 24 months?

Solution:

$$C(m) = 250m + 25$$

$$C(24) = 6025$$

Total spent after 24 months is \$6,025.00.