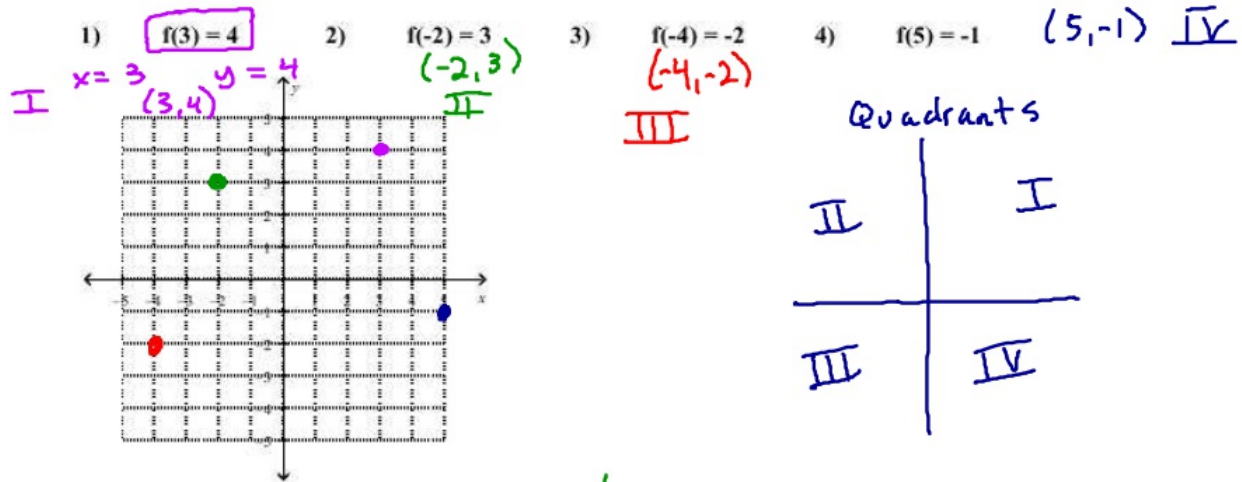


Linear Modeling/Regression

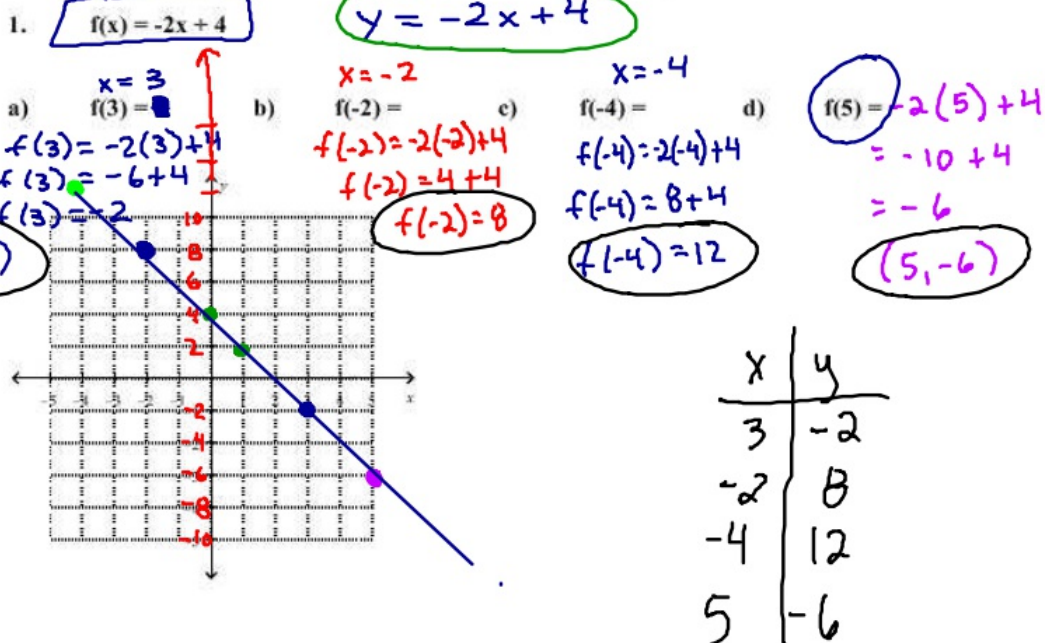
FUNCTION NOTATION

Given the function notation of a coordinate:

a) Rewrite the coordinate as (x, y) b) Plot the point on the graph and give the quadrant it lies in



Given the function find the following coordinates and then graph the function



x	0	7		
y	4	-10		

Given the function and the functions value find the following coordinates and then graph the function

1. $f(x) = -2x + 4$

$y = -2x + 4$

a) $f(x) = 4$

$y = 4$

$$\begin{array}{r} 4 = -2x + 4 \\ -4 \quad -4 \\ \hline 0 = -2x \end{array}$$

$x = 0$

$$\begin{array}{r} 0 = -2x \\ -2 \quad -2 \\ \hline 5 = x \end{array}$$

b) $f(x) = -10$

$y = -10$

$$\begin{array}{r} -10 = -2x + 4 \\ -4 \quad -4 \\ \hline -14 = -2x \\ -2 \quad -2 \\ \hline 7 = x \end{array}$$

$x = 7$

$(7, -10)$

c) $f(x) = -6$

$(5, -6)$

$$\begin{array}{r} -6 = -2x + 4 \\ -4 \quad -4 \\ \hline -10 = -2x \end{array}$$

$$\begin{array}{r} -10 = -2x \\ -2 \quad -2 \\ \hline 5 = x \end{array}$$

$5 = x$

d) $f(x) = 5$

$$\begin{array}{r} 5 = -2x + 4 \\ -4 \quad -4 \\ \hline 1 = -2x \end{array}$$

$$\begin{array}{r} 1 = -2x \\ -2 \quad -2 \\ \hline -\frac{1}{2} = x \end{array}$$

$x = -\frac{1}{2}$
 $(-\frac{1}{2}, 5)$