

099  $\int 3.5 \text{ II}$  #s 35, 39, 40, 42, 44, 48, 50, 54

#s 35-40 Use the graph to find each value.

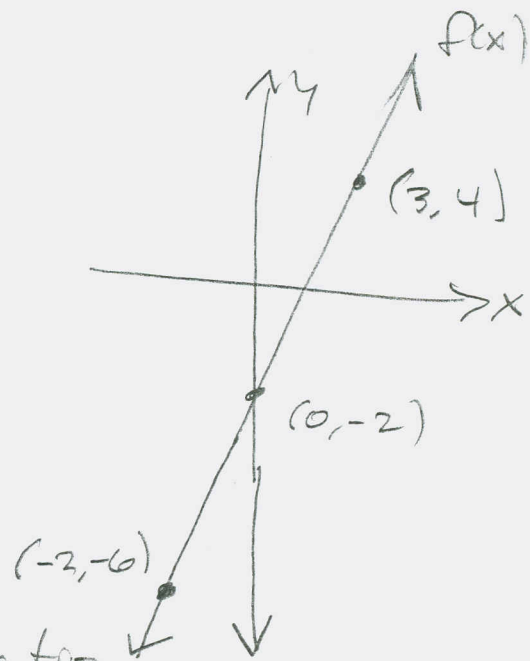
(35)  $f(0) = -2$

(39) Find  $x$  such that

$f(x) = -6$  ;  $x = -2$

(40) Find  $x$  such that

$f(x) = 4$  ;  $x = 3$



#s 41-46 Write an equation of each line.

(42) Horizontal, thru  $(-3, 1)$  ;  $y = 1$

(44) Vertical, thru  $(4, 7)$  ;  $x = 4$

#s 47-52 Find an equation of each line write the equation using function notation.

(48) Thru  $(1, 5)$  & parallel to  $f(x) = 3x - 4$   
 $(x_1, y_1)$   $m = 3$

$y - y_1 = m(x - x_1)$

$y - 5 = 3(x - 1)$

$y - 5 = 3x - 3$

$y = 3x + 2$

$f(x) = 3x + 2$

099 § 3.5 #s 50, 54

(50) thru  $(-4, 8)$  ; perpendicular to  $2x - 3y = 1$   
 $(x_1, y_1)$

$$2x - 3y = 1$$

$$-3y = -2x + 1$$

$$y = \frac{2}{3}x - \frac{1}{3}$$

$$m = \frac{2}{3} \implies m_{\perp} = -\frac{3}{2}$$

$$y - y_1 = m_{\perp}(x - x_1)$$

$$y - 8 = -\frac{3}{2}(x - (-4))$$

$$y - 8 = -\frac{3}{2}x - 6$$

$$y = -\frac{3}{2}x + 2$$

$$\boxed{f(x) = -\frac{3}{2}x + 2}$$

#s 53-74 Find the equation of each line.  
Write the equation in standard form,  
unless indicated otherwise.

(54) Slope 3 ; thru  $(-4, 2) = (x_1, y_1)$   
 $m = 3$

$$y - y_1 = m(x - x_1)$$

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

$$y - 2 = 3x + 12$$

$$y = 3x + 14$$

$$\boxed{-3x + y = 14}$$

or

$$3x - y = -14$$