Pg. 304 (# 9-14, 15-33 every 3rd problem, 34-38, 44-46)

(9) $\frac{2y}{2} = \frac{5x}{2} + \frac{1}{2}$

$y = \frac{5}{2}x + \frac{1}{2}$

*since you are adding $\frac{1}{2}$ on to "k"

NOT direct variation

(10) $8x + 9y = 10$

$-8x \quad -8x$

$\frac{9y}{9} = \frac{-8x}{9} + \frac{10}{9}$

$y = -\frac{8}{9}x + \frac{10}{9}$

*since you are adding on to "k"

NOT direct variation

(11) $\frac{-12x}{6} = \frac{6y}{6}$

$-2x = y$

$y = -2x$

*can be written in direct variation format

Yes direct variation

(12) $y + 8 = -x$

$-8 \quad -8$

$y = -1x - 8$

*since you are subtracting 8 from "k"

NOT direct variation

(13) $-4 + 7x + 4 = 3y$

$\frac{7x}{3} = \frac{3y}{3}$

$\frac{7}{3}x = y$

$y = \frac{7}{3}x$

*Yes direct variation

(14) $0.7x - 1.4y = 0$

$\frac{-1.4y}{-1.4} = \frac{-0.7x}{-1.4}$

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

Yes direct variation

(15) $y = kx$

$\frac{-10}{2} = \frac{k(2)}{2}$

$-5 = k$

$y = -5x$

$y = -5(12)$

$y = -60$

(18) $y = kx$

$\frac{125}{-5} = \frac{k(-5)}{-5}$

$-25 = k$

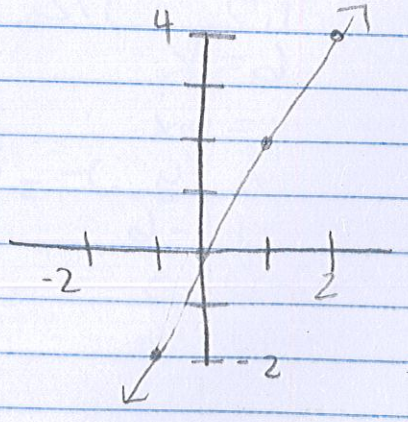
$y = -25x$

$y = -25(12)$

$y = -300$

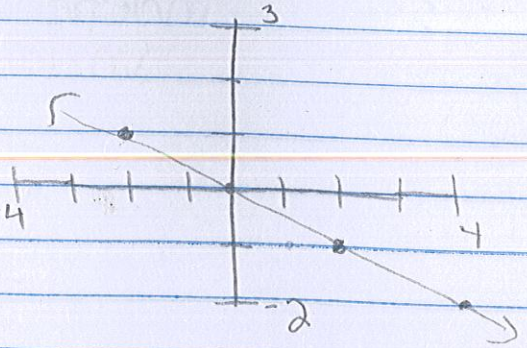
(21) $y = 2x$

x	y
-1	-2
0	0
1	2
2	4



(24) $y = -\frac{1}{2}x$

x	y
-2	1
0	0
2	-1
4	-2



(27)

x	y	
-6	9	$9/-6 = -1.5$
1	-1.5	$-1.5/1 = -1.5$
8	-12	$-12/8 = -1.5$

$y = -1.5x$

*your graph will go through the origin

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

$y = kx$

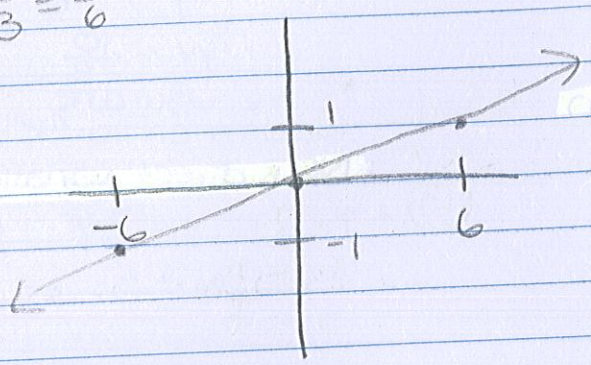
$\frac{1}{2} = k(3)$

$\frac{1}{3} \quad \frac{3}{3}$

$\frac{1}{2} \div \frac{3}{1} = \frac{1}{2} \times \frac{1}{3} = \frac{1}{6}$

$y = \frac{1}{6}x$

x	y
-6	-1
0	0
6	1



33) $y = 7.2$ $x = 1.2$

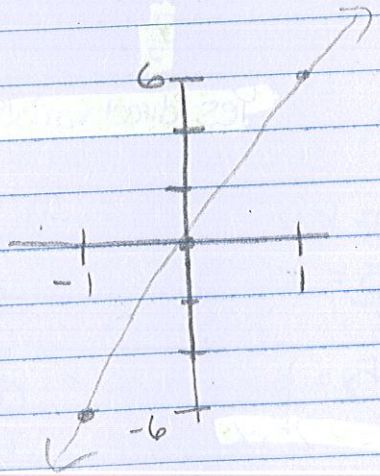
$y = kx$

$\frac{7.2}{1.2} = \frac{k(1.2)}{1.2}$

$6 = k$

$y = 6x$

x	y
-1	-6
0	0
1	6



34) weight(x) = 160 lb vs 175 lb ? * Determine your independent + dependent variable.

quarts(y) = 4.6

$y = kx$

$\frac{4.6}{160} = \frac{k(160)}{160}$

$k = .028 \approx .03$

$y = .03x$

$y = .03(175)$

$y = 5.25 \approx 5$ qts

(35) $V = I \times R$

$V = 24(2)$

a) $V = 48$ volts

b) $\frac{18}{24} = \frac{24R}{24}$

.75 ohm

(36) Yes, the amount of cal/oz is constant / 0 cal @ 0 oz

(37) No, as the rate increases, the distance decreases

(38) Yes, as side length increases perimeter increases and if side length is zero, perimeter is zero

(44) $(3, 4) \quad (9, y)$ $\times 3$ $\div 3/2$, $\times 3$ $y = 12$

(45) $(1, y) \quad (\frac{3}{2}, -9)$ $\div 3/2$

$\frac{-9}{1} \div \frac{3}{2} = \frac{-9}{1} \times \frac{2}{3} = \frac{-18}{3} = -6$

$y = -6$

(46) $(-5, 3) \quad (x, -4.8)$ $\times -1.6$

$x = 8$