

5.1.2

HWK

5-18) a) $\frac{x}{2} + \frac{x}{6} = 7$

$$6\left(\frac{x}{2} + \frac{x}{6}\right) = (6)7$$

$$\frac{6x}{2} + \frac{6x}{6} = 42$$

$$3x + x = 42$$

$$4x = 42$$

$$\frac{4x}{4} = \frac{42}{4}$$

$$x = 10.5$$

b) $\frac{x}{9} + \frac{2x}{2} = \frac{1}{3}$

$$18\left(\frac{x}{9} + \frac{2x}{2}\right) = (18)\frac{1}{3}$$

$$\frac{18x}{9} + \frac{36x}{2} = \frac{18}{3}$$

$$2x + 18x = 6$$

$$20x = 6$$

$$\frac{20x}{20} = \frac{6}{20}$$

$$x = \frac{6}{20} = \frac{3}{10}$$

5-19) Parallel lines would not intersect.

5-20) $B = 2A$ $109,000 =$

A

$$C = A - 15,000$$

B got 2A which is
62,000 votes

$$A + (2A) + (A - 15,000) = 109,000$$

$$A + 2A + A - 15,000 = 109,000$$

$$4A - 15,000 = 109,000$$

$$+15,000 \quad +15,000$$

$$\hline 4A = 124,000$$

$$A = 31,000$$

$$y = mx + b$$

5-21) 2 points on my line are (1,1) and (2,4)

a) growth of her line is:

$$m = 3$$

$$y = 3x - 2$$

x	y
0	-2
1	1
2	4

Arrows indicate a slope of +3 between (0, -2) and (1, 1), and between (1, 1) and (2, 4).

b) y-intercept is
(0, -2)

c) $y = 3x - 2$

5-22)

a) $2(3x - 4) = 22$

$$6x - 8 = 22$$

$$+8 \quad +8$$

$$\hline 6x = 30$$

$$\frac{6x}{6} = \frac{30}{6}$$

$$x = 5$$

b) $6(2x - 5) = -(x + 4)$

$$12x - 30 = -x - 4$$

$$+30 \quad +30$$

$$\hline 12x = -x + 26$$

$$+x \quad +x$$

$$\hline 13x = 26$$

$$\frac{13x}{13} = \frac{26}{13}$$

$$x = 2$$

c) $2 - (y + 2) = 3y$

$$2 - y - 2 = 3y$$

$$-y = 3y$$

$$(-1) \cdot y = (-1) \cdot 3y$$

$$y = -3y$$

$$y = 0$$

d) $3 + 4(x + 1) = 159$

$$3 + 4x + 4 = 159$$

$$4x + 7 = 159$$

$$-7 \quad -7$$

$$\hline 4x = 152$$

$$\frac{4x}{4} = \frac{152}{4}$$

$$x = 38$$