87) HW Real World Problems
11/8

1.) Let x = # of windows

$145.50x + 2,250 = 4432.50$
$-2,250 \quad -2250$
$145.50x = 2182.5$
$145.50 \quad 145.5$

ans $x = 15$

15 windows

*2.) Let x = # of months

$28 + 24x = 49 + 17x$
$-17x \quad -17x$
$28 + 7x = 49$
$-28 \quad -28$
$7x = 21$
$7 \quad 7$

$x = 3$ months

3.) Let x = # of hrs

$25x + 1250 = 2500$
$-1250 \quad -1250$
$25x = 1250$
$25 \quad 25$

$x = 50$ hrs

4.) Let x = # lbs of coffee

$$8.66x + 35.36 = 70$$
$$-35.36 \quad -35.36$$
$$\frac{8.66x}{8.66} = \frac{34.64}{8.66}$$

$x = 4$ lbs of coffee

5.) Let x = # of miles

$$34.99 + 0.59x = 148.86$$
$$-34.99 \quad -34.99$$
$$\frac{0.59x}{0.59} = \frac{113.87}{0.59}$$

$x = 193$ miles

* 6.) Let x = # of weeks

sophia: $13 + 7.25x$ = max: $33 + 5.25x$

$$-5.25x \quad -5.25x$$
$$13 + 2x = 33$$
$$-13 \quad -13$$
$$\frac{2x}{2} = \frac{20}{2}$$

$x = 10$ weeks

7.) Let x = # of min

$$19.95 + 0.55x = 95.30$$
$$-19.95 \quad -19.95$$
$$\frac{0.55x}{0.55} = \frac{75.35}{0.55}$$

$x = 137$ min

89

8.) Let x = # of people

$40 + 27.50x = 370$

$-40 \quad\quad -40$

$27.50x = 330$

$\frac{27.50x}{27.50} = \frac{330}{27.50}$

$x = 12$ people

9.) Let

$P = 104$ ft
width, x
length

$4x + 2$

$(4(10)) + 2$

42

ans:
width = 10 ft
length = 42 ft

$P = 2l + 2w$

$104 = 2(4x + 2) + 2x$

$104 = 8x + 4 + 2x$

$104 = 10x + 4$

$-4 \quad\quad -4$

$\frac{100}{10} = \frac{10x}{10}$

$x = 10$

10.) Let 1st # = x = 17 ans

2nd # = $3x - 6$ = 45

$1x + 3x - 6 = 62$

$4x - 6 = 62$

$+6 \quad\quad +6$

$\frac{4x}{4} = \frac{68}{4}$

$x = 17$

$3(17) - 6$

$51 - 6$

45