

5) no solution

6) no solution

7) Any real number

8) Any real number

9a) $40000 + 800y$

9b) $200000 + 800y$

9c) never

10a) $810m < 700m + 110m + 50$

10b) $0 < 50$

10c) Apartment A

14) $n \geq -\frac{11}{3}$

15) Brokefast is cheaper

because:

$$4.75 + 16(.1) < 3.5 + 16(.25)$$

2) $S = \frac{23.5 - 1}{3} = 7\frac{1}{2}$

3a) $l = \frac{p}{2} - w$

3b) $l; p; w$

Sample answer: let
 $l = 1$, $w = 2$, and
 $p = 6$. $6 = 2(1) +$
 $2(2)$, which checks
 with $l = \frac{p}{2} - w$
 $= \frac{6}{2} - 2 = 3 - 2$
 $= 1$

3c)

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