HW review: 4F

(15) $5(x+8) > 2(x+7) + 3(x+4)$

$5x + 40 > 2x + 14 + 3x + 12$

$5x + 40 > 5x + 26$

$-5x - 40 \qquad -5x - 40$

$0 + 0 > 0 + ^-14$

$0 > ^-14$ \qquad true for all x

(13) 4. $\dfrac{-x}{4} < (-2x + 7) \cdot 4$

$\quad\quad -x < -8x + 28$

$\quad\quad +8x \quad\quad +8x$

$\quad\quad \dfrac{7x}{7} < \dfrac{28}{7}$

$\quad\quad\quad x < 4$

⑩ $7 - \boxed{\dfrac{x}{-4}} < -7$

$7 - -\dfrac{x}{4} < -7$

$7 + \boxed{\dfrac{x}{4}} < -7$

$\underset{-7}{7} \quad \underset{-7}{}$

$4 \cdot \dfrac{x}{4} < -14 \cdot 4$

$x < -56$

$\dfrac{x}{-4} = \dfrac{-x}{4} = -\dfrac{x}{4}$

⑦ $\left(-\dfrac{5x}{2} - 1\right)^2 \cdot 2 < (-2x + 17) \cdot 2$

$-5x - 2 < -4x + 34$
$+4x + 2 \qquad +4x + 2$

$\dfrac{-x}{-1} < \dfrac{36}{-1}$

$x > -36$

initial rental cost: $36

Cost per cone: $0.52

Sell price: $1.40 per cone

p = profit

c = # of cones he makes/sells

$36 + 0.52c$ = total cost

$1.40c$ = total sales

$$p = \underline{1.40c - (36 + 0.52c)}$$

$p > 0$

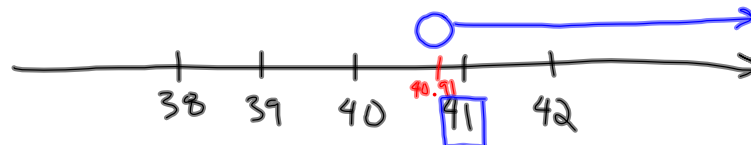$1.4c - (36 + 0.52c) > 0$

$1.4c - 36 - 0.52c > 0$

$0.88c > 36$

$c > 40.91$

$\boxed{c \geq 41}$

$c > 41.06$

$c > 41$

$c \geq 42$

(a)   64 hz   23,000 hz

x = frequency

$64 \leq x \leq 23,000$

(b) $125 \leq r \leq 2000$

(c) $\boxed{1000 \leq w \leq 123,000}$

$16 \leq \boxed{e \leq 12,000}$ <u>not</u>

$12,000 < (w-e) \leq 123,000$

(d) $64 \leq h \leq 23,000$

$67 \leq d \leq 45,000$

$(d-h)$

$23,000 < (d-h) \leq 45,000$

homework:

→ p. 415   5-23 odd

→ STUDY FOR TEST
  6.1 - 6.5