

## Warm Up

Solve:  $1x + 1 < 4x + 7$

-4x                      -4x

$$-3x + 1 < 7$$

-1                      -1

$$\frac{-3x}{-3} > \frac{6}{-3}$$

$$x > -2$$

P 86

# hrs

Salary

#14

H:  $x$  $12x$ C:  $x+5$  $12(x+5) = 12x + 60$ 

$$12x + 12x + 60 > 780$$

$$24x + 60 > 780$$

-60                      -60

Caroline worked  
more than 35 hrs

$$\frac{24x}{24} > \frac{720}{24}$$

$$x > 30$$

#15

G:  $x + 4$  17

B:  $x$  13

Minimum of  
17 girls

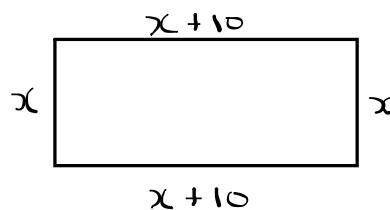
$$\underbrace{x+4} + \underbrace{x} \geq 30$$

$$2x + 4 \geq 30$$

$$\frac{2x}{2} \geq \frac{26}{2}$$

$$x \geq 13$$

#16



$$P = 2L + 2W$$

$$= 4x + 20$$

①  $P > 80$

②  $P < 100$

$$80 < P < 100$$

①  $4x + 20 > 80$

$$\frac{4x}{4} > \frac{60}{4}$$

$$x > 15$$

②  $4x + 20 < 100$

$$\frac{4x}{4} < \frac{80}{4}$$

$$x < 20$$

$$]15, 20[$$

#17 Area prism =  $2A_b + A_L$       $\textcircled{8} \quad \boxed{A_b = \frac{96}{12}}$

$$A_L = P_b h \quad P_b = 2(8+12) = 40$$

$$A = 2(96) + 40h$$

$$\textcircled{1} \quad \begin{array}{r} 192 + 40h > 352 \\ -192 \phantom{+ 40h} \\ \hline 40h > 160 \\ \phantom{40} \underline{40} \phantom{0} \\ h > 4 \end{array}$$

$$\textcircled{2} \quad \begin{array}{r} 192 + 40h < 392 \\ -192 \phantom{+ 40h} \\ \hline 40h < 200 \\ \phantom{40} \underline{40} \phantom{0} \\ h < 5 \end{array}$$

$$h > 4 \quad ] 4, 5[$$

$$h < 5$$

#18  $x = \# \text{ km}$

$$\textcircled{1} \quad \begin{array}{r} 0.75x + 1.25 > 11 \\ -1.25 \phantom{+ 0.75x} \\ \hline 0.75x > 9.75 \\ \phantom{0.75} \underline{0.75} \phantom{0} \\ x > 13 \text{ km} \end{array}$$

$$\textcircled{2} \quad \begin{array}{r} 0.75x + 1.25 < 14 \\ -1.25 \phantom{+ 0.75x} \\ \hline 0.75x < 12.75 \\ \phantom{0.75} \underline{0.75} \phantom{0} \\ x < 17 \text{ km} \end{array}$$

$$\begin{array}{r} 0.75x > 9.75 \\ \phantom{0.75} \underline{0.75} \phantom{0} \\ x > 13 \text{ km} \end{array}$$

$$\begin{array}{r} 0.75x < 12.75 \\ \phantom{0.75} \underline{0.75} \phantom{0} \\ x < 17 \text{ km} \end{array}$$

$$x > 13 \text{ km}$$

$$x < 17 \text{ km}$$

$$] 13, 17[$$

#19

$$\frac{70+78+x}{3} \geq 75$$

$$\frac{148+x}{3} \geq \frac{75}{1}$$

$$148+x \geq 3(75)$$