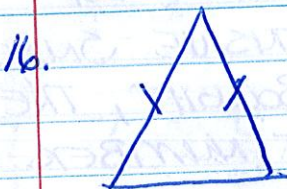


PG 190, 15, 16, 24-36 even  
 40, 42, 45, 53, 54

at least

15. 250 mi  
 w first 5 hr  
 $x = \text{speed}$   
 $\frac{5x}{5} \geq \frac{250}{5}$   
 $x \geq 50 \text{ mph}$

26.  $6 - 3p \leq 4 - p$   
 $6 - 3p + p \leq 4 - p + p$   
 $6 - 2p \leq 4$   
 $+6 - 6 - 2p \leq 4 - 6$   
 $-2p \leq -2$   
 $\frac{-2p}{-2} \leq \frac{-2}{-2}$   
 $p \geq 1$



perimeter at most  
 12 w.  $x \leq 12$   
 lengths of sides = 5  
 ~~$x_1 + x_2 + x_3 \leq 12$~~   
 ~~$5 + 5 + x_3 \leq 12$~~   
 $10 + x \leq 12$   
 $+10 - 10 + x \leq 12 - 10$   
 $x \leq 2$

greater than zero  
 but less than or  
 equal to 2

28.  $4t + 17 > 7 + 5t$   
 $4t - 5t + 17 > 7 + 5t - 5t$   
 $-t + 17 > 7$   
 $-t + 17 - 17 > 7 - 17$   
 $-t > -10$   
 $\frac{-t}{-1} > \frac{-10}{-1}$   
 $t < 10$

30.  $-5r + 6 \leq -5(r + 2)$   
 $-5r + 6 \leq -5r - 10$   
 $-5r + 5r + 6 \leq -5r + 5r - 10$   
 $6 \leq -10$   
 NO solution

21.  $4v + 8 \geq 6v + 10$   
 $4v - 6v + 8 \geq 6v - 6v + 10$   
 $-2v + 8 - 8 \geq 10 - 8$   
 $\frac{-2v}{-2} \geq \frac{2}{-2}$   
 $v \leq -1$

$$\begin{aligned}
 32. \quad & 9 + 2x < 7 + 2(x-3) \\
 & 9 + 2x < 7 + 2x - 6 \\
 & 9 + 2x < 1 + 2x \\
 & 9 + 2x - 2x < 1 + 2x - 2x \\
 & 9 < 1 \\
 & \text{No solution}
 \end{aligned}$$

$$\begin{aligned}
 42. \quad & 4(3n-1) \geq 2(n+3) \\
 & 12n - 4 \geq 2n + 6 \\
 & 12n - 2n - 4 \geq 2n - 2n + 6 \\
 & 10n - 4 \geq 6 \\
 & 10n - 4 + 4 \geq 6 + 4 \\
 & \frac{10n}{10} \geq \frac{10}{10} \\
 & n \geq 1
 \end{aligned}$$

$$\begin{aligned}
 34. \quad & 6w - 4 \leq 2(3w + 6) \\
 & 6w - 4 \leq 6w + 12 \\
 & 6w - 6w - 4 \leq 6w - 6w + 12 \\
 & -4 \leq 12 \\
 & \text{All REAL Numbers} \\
 & \text{BECAUSE } -4 \leq 12
 \end{aligned}$$

$$\begin{aligned}
 45. \quad & \text{Rate} = 1500 \text{ for } 3 \text{ hr} \\
 & + 1.25 \text{ each half hr} \\
 & \text{raise } 2125 \\
 & 1500 + 125x \leq 2125 \\
 & x = \frac{1}{2} \text{ hr.} \\
 & 1500 + 125x \leq 2125
 \end{aligned}$$

$$\begin{aligned}
 36. \quad & 3s + 6 \leq -5(s+2) \\
 & 3s + 6 \leq -5s - 10 \\
 & 3s + 5s + 6 \leq -5s + 5s - 10 \\
 & 8s + 6 \leq -10 \\
 & 8s + 6 - 6 \leq -10 - 6 \\
 & \frac{8s}{8} \leq \frac{-16}{8} \\
 & s \leq -2
 \end{aligned}$$

$$\begin{aligned}
 & 1500 - 1500 + 125x \leq 2125 - 1500 \\
 & \frac{125x}{125} \leq \frac{625}{125} \\
 & x \leq 5 \text{ half hrs} \\
 & 5 \text{ half hours} = \\
 & 2.5 \text{ hours}
 \end{aligned}$$

$$\begin{aligned}
 40. \quad & -2(0.5 - 4t) \geq -3(4 - 3.5t) \\
 & -1 + 8t \geq -12 + 10.5t \\
 & -1 + 8t - 10.5t \geq -12 + 10.5t - 10.5t \\
 & -1 - 2.5t \geq -12 \\
 & -1 + 1 - 2.5t \geq -12 + 1 \\
 & \frac{-2.5t}{-2.5} \geq \frac{-11}{-2.5} \\
 & t \leq 4.4
 \end{aligned}$$

$$\begin{aligned}
 \therefore & 3 \text{ original} \\
 & \text{hours} + 2.5 \\
 & \text{half hours} \\
 & \text{is } 5.5 \text{ hrs.}
 \end{aligned}$$

$$53. \quad \begin{array}{l} 4y + 4 \leq -3y + 6 \\ 4y \leq -3y + 2 \\ \cancel{4y} \leq \cancel{-3y} + 2 \\ \cancel{4y} \leq \cancel{-3y} + 2 \end{array}$$

3y was subtracted  
FROM INSTEAD OF  
ADDED TO EACH SIDE

CORRECT METHOD

$$\begin{array}{l} 4y + 4 \leq -3y + 6 \\ 4y + 3y + 4 \leq -3y + 3y + 6 \\ 7y + 4 - 4 \leq 6 - 4 \\ 7y \leq 2 \\ \frac{7y}{7} \leq \frac{2}{7} \\ y \leq \frac{2}{7} \end{array}$$

$$54. \quad \begin{array}{l} 5(p+3) > 4p+2 \\ 5p+3 > 4p+2 \\ 5p > 4p-1 \\ p > -1 \end{array}$$

5 WASN'T FULLY  
DISTRIBUTED

CORRECT METHOD

$$\begin{array}{l} 5p + 15 > 4p + 2 \\ 5p - 4p + 15 > 4p - 4p + 2 \\ p + 15 > 2 \\ p + 15 - 15 > 2 - 15 \\ p > -13 \end{array}$$