36. s = expense for after schools

$s \geq 2(750)$

$s \geq 1500$

variable | inequality | constant

The arrow points to the direction you shade.

5-4 Solving Inequalities

p. 241

a.) $18 > 12$

b.) $21 > 15$ $\quad \begin{matrix} +3 & +3 \end{matrix}$

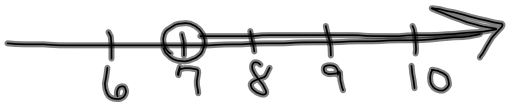
Addition Prop. of Equality

$x + 8 > 12$

$-8 \quad -8$

$x > 7$

D	U
+5	-5



$y + 10 < 3$

$-10 \quad -10$

$y < -7$

D | U

$+10 \mid -10$

D | U

$+7 \mid -7$

$x + 7 \geq 10$

-7

$x \geq 3$

$3 \leq b - 1\frac{1}{3}$

$+3 \leq b - \frac{4}{3}$ $\quad +\frac{4}{3}$

$+3 + \frac{4}{3} \leq b$

$\frac{13}{3} \leq b$

$b \geq \frac{13}{3}$

$b \geq 4\frac{1}{3}$

D	U
$-\frac{4}{3}$	$+\frac{4}{3}$

flip-flop rule

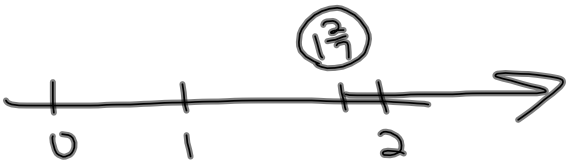
$$\begin{array}{r} 3 \geq g + 7 \\ -7 \quad -7 \\ \hline -4 \geq g \\ g \leq -4 \end{array}$$

$6 + 5x > 2$

$-6 \quad -6$

$\frac{5x}{5} > \frac{-4}{5}$

$x > -\frac{4}{5}$



n = # of lawns in 15 hrs.

$\frac{4}{3} \cdot \frac{3}{4} n \geq \frac{15}{1} \cdot \frac{4}{4}$

D	U
$\cdot \frac{3}{4}$	$\cdot \frac{4}{3}$

$n \geq 20$

Multiply or Divide by a Negative

Flip-Flop Rule

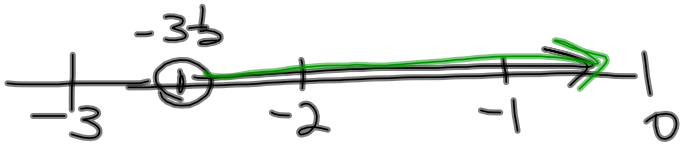
a) $\frac{-5}{5}x < \frac{45}{-5}$ D | U, $\cdot -5 \mid \div(-5)$

$x > -9$

b) $\frac{7}{-2} > \frac{-2}{-2}f$ D | U, $\cdot(-2) \mid \div(-2)$

$-\frac{7}{2} < f$ flip flop (divide by a negative)

$f > -\frac{7}{2}$ (flip flop Order Matters)



$$\frac{-4}{1}\cdot\frac{y}{4} < \frac{3}{-4}$$

$$y > -12$$

D/U ÷-4/÷-4

Multiply by a negative Flip-flop 11 ☺

5-4 even #s

Do not do:

40 42 44 46

62 64 66