

$x + 9 < 15$
 $-9 \quad -9$
 $x < 6$

$x + 8 \geq -6$
 $+3 \quad +3$
 $x \geq -3$

$3x \leq -27$
 $\frac{3}{3} \quad \frac{-27}{3}$
 $x \leq -9$

$7(\frac{x}{7} < -3)$
 $x < -21$

$-\frac{8x}{-8} > \frac{40}{-8}$
 $x < -5$

$\frac{x}{4} \geq -9$
 $x \geq 36$

*Don't Forget: When (\cdot) or (\div) by a negative, switch signs

$4x - 7 > 5$
 $+7 \quad +7$
 $4x > 12$
 $\frac{4x}{4} > \frac{12}{4}$
 $x > 3$

$-2x + 2 \leq -18$
 $-2 \quad -2$
 $-2x \leq -20$
 $\frac{-2x}{-2} \leq \frac{-20}{-2}$
 $x \geq 10$

$12(x-3) + 2x > 6$
 $12x - 36 + 2x > 6$
 $14x - 36 > 6$
 $+36 \quad +36$
 $14x > 42$
 $\frac{14x}{14} > \frac{42}{14}$
 $x > 3$

$x - 3(x+2) < 4$
 $x - 3x - 6 < 4$
 $-2x - 6 < 4$
 $+6 \quad +6$
 $-2x < 10$
 $\frac{-2x}{-2} < \frac{10}{-2}$
 $x > -5$

$4(2-x) \leq 5(x-2)$
 $8 - 4x \leq 5x - 10$
 $+4x \quad +4x$
 $8 \leq 9x - 10$
 $+10 \quad +10$
 $18 \leq 9x$
 $\frac{18}{9} \leq \frac{9x}{9}$
 $2 \leq x \rightarrow \boxed{x \geq 2}$

$2(4-x) < 3x - 7$
 $8 - 2x < 3x - 7$
 $+2x \quad +2x$
 $8 < 5x - 7$
 $+7 \quad +7$
 $15 < 5x$
 $\frac{15}{5} < \frac{5x}{5}$
 $3 < x \rightarrow \boxed{x > 3}$

Less than makes "L"

$< \leq$

Greater than

$> \geq$

When graphing
 X needs to be
 on the left side!

If you look, the
 inequality symbols
 make an "arrow".

Less than
 Shade Left

$\leftarrow \leq \leftarrow$

Greater than
 shade right

$\rightarrow \geq \rightarrow$