6.6 Solving Inequalities : Addition & Subtraction

Dec5/14

Note Title 12/5/2014

To solve an inequality, we use the same strategy as for solving an equation. We isolate the variable by adding or subtracting from each side of the inequality.

Compare the following solutions:

$x + 3 = 5$

$-3 \quad -3$

$x = 2$

only one solution.

$x + 3 < 5$

$-3 \quad -3$

$x < 2$

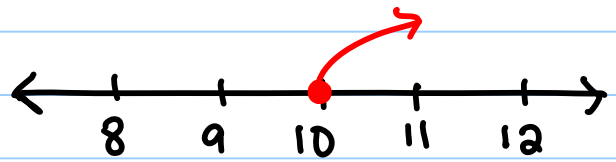
Many solutions (any # less than 2)

Examples: Solve the inequality. Graph the solution.

1) $6 \leq x - 4$

$+4 \quad +4$

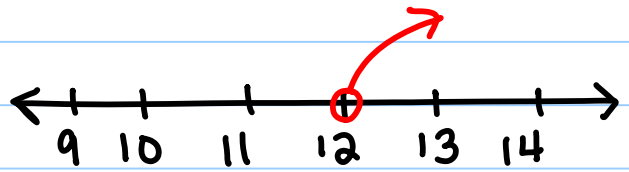
$10 \leq x$ or $x \geq 10$



2) $3x > 2x + 12$

$-2x \quad -2x$

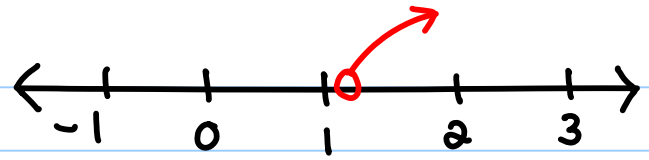
$x > 12$



3) $3.5 < x + 2.4$

$-2.4 \quad -2.4$

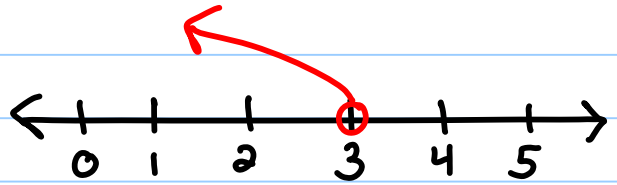
$1.1 < x$ or $x > 1.1$



4) $x + 1 < 4$

$-1 \quad -1$

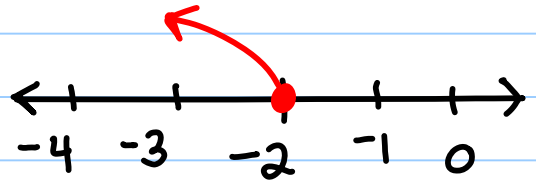
$x < 3$



5) $-13 \geq x - 11$

$+11 \quad +11$

$-2 \geq x$ $\quad x \leq -2$



pg 298 # 4,7,8,9

(just isolate the variable)