1. Find the exact solution for each equation.

a) $4 - \frac{8}{3}R = -14$

$-4 \quad\quad -4$

$3\left(-\frac{8}{3}R\right) = (-18)3$

$\frac{-8R}{-8} = \frac{-54}{-8} \div 2 = \frac{27}{4} = 6.75$

Or you could use the reciprocal of -8/3

a) $4 - \frac{8}{3}R = -14$

$-4 \quad\quad -4$

$-\frac{3}{8}\left(-\frac{8}{3}\right)R = (-18)\left(-\frac{3}{8}\right)$

$R = \frac{54}{8} = \frac{27}{4}$

b) $6k + 24 = 4k$

$-4k \quad\quad -4k$

$2k + 24 = 0$

$-24 \quad -24$

$\frac{2k}{2} = \frac{-24}{2}$

$k = -12$

OR

b) $6k + 24 = 4k$

$-6k \quad\quad -6k$

$\frac{24}{-2} = \frac{-2k}{-2}$

$-12 = k$

2. Solve this inequality.

$6p - 4(p + 2) - 5 > 3p - 13 - p$

$6p - 4p - 8 - 5 >$

$2p - 13 > 2p - 13$

$-2p \quad\quad -2p$

$-13 > -13$

NO SOL

This is not true!

Solve and graph the solution:

4 + 3x - 7 > 15

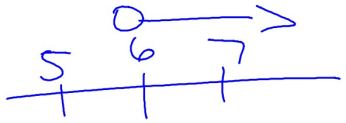
$3x - 3 > 15$

$+3 \quad +3$

$\frac{3x}{3} > \frac{18}{3}$

$x > 6$

Check your answer.



Solve and graph the solution:

$7 - 2x > 23$

$-7 \quad -7$

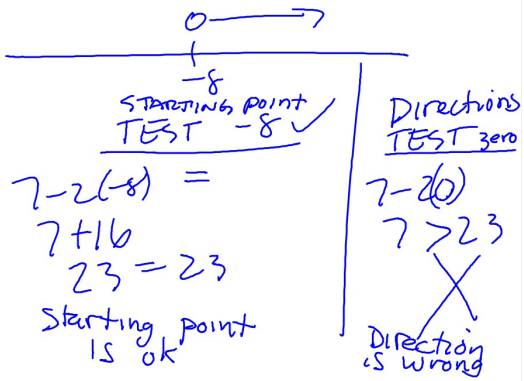
$-2x > 16$

$\div -2 \quad \div -2$

$x > -8$

$x < -8$

Check your answer.



When solving INEQUALITIES:

- Take all the same steps as if it were an EQUATION
- If you multiply or divide both sides by a NEGATIVE you must FLIP the inequality symbol.