

The Golden Rule

* Whenever you ^{multiply} divide by a negative, you must flip the inequality symbol

1. Get the variable alone by using inverse operation
2. Make sure the variable is on the left
3. Draw a number line + plot the point
4. Open or closed?
5. Shade left or right?

Open Circle

$<$, $>$

Closed circle

\leq , \geq

$$\begin{array}{r|l}
 \begin{array}{r}
 \cancel{5} - 3x \\
 \hline
 -5 - x
 \end{array} & \leq \\
 \begin{array}{r}
 \cancel{13} + x \\
 \hline
 -5 - x
 \end{array} &
 \end{array}$$

$$\begin{array}{r|l}
 -4x & \leq 8 \\
 \hline
 -4 & -4 \\
 \hline
 x & \geq -2
 \end{array}$$

