

Wed

LESSON
11-7 Solving Two-Step Inequalities

When solving two-step inequalities, use the same process you learned to solve two-step equations. Use the order of operations in reverse. First, add or subtract, and then multiply or divide.

Solving Two-Step Inequalities

Solve. Then graph each solution set on a number line.

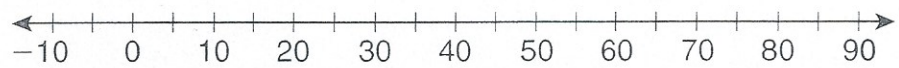
A. $\frac{t}{4} - 12 < 8$

_____ What number do you add to both sides?

$\frac{t}{4} < \underline{\hspace{1cm}}$ Add.

$(\underline{\hspace{1cm}}) \frac{t}{4} < (20)(\underline{\hspace{1cm}})$ Multiply both sides of the inequality by _____.

$t < 80$ Solve for t . Graph the solution.



Draw an _____ circle on _____ because 80 _____ included as a solution.

Draw an arrow from _____ going to the _____ of _____ because the numbers smaller than _____ are all to the _____ of _____.

B. $-6y - 7 \geq 41$

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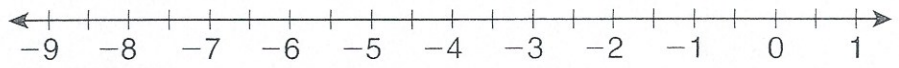
_____ What number do you add to both sides?

$-6y \geq 48$

$\frac{-6y}{\underline{\hspace{1cm}}} \geq \frac{48}{\underline{\hspace{1cm}}}$ Divide both sides by _____.

Should you reverse the inequality sign? _____

$y \square -8$ Solve for y . Graph the solution.



Draw a _____ circle on -8 because -8 is included as a solution.

Draw an arrow from _____ going to the _____ of _____ because the numbers smaller than _____ are all to the _____ of _____.