

4-3B: Solve Two-Step Equations with Rationals

10-20-15

*Goal: use INVERSE OPERATIONS to ISOLATE THE VARIABLE
 meaning: get rid of all numbers on the side with the variable.

Remember: Add/Subtract first then multiply/divide.

Ex. 1: Solve each equation. Graph your solution.

A) $13.6 + 2.1x = -5.3$

$$\begin{array}{r} -13.6 \\ \hline 2.1x = -18.9 \\ \hline 2.1 \quad 2.1 \end{array}$$

$$x = -9$$

$$\begin{array}{r} 9 \\ 2.1 \overline{) 18.9} \\ \underline{18.9} \\ 0 \end{array}$$

B) $\frac{3}{5}x = \frac{3}{8}$

$$\begin{array}{r} \cancel{3} \cdot \frac{3}{5}x = \frac{\cancel{3} \cdot 5}{8 \cdot \cancel{3}} \\ \cdot \frac{5}{5} \end{array}$$

$$x = \frac{5}{8}$$

C) $2x + \frac{3}{4} = \frac{7}{8} \rightarrow \frac{7}{8}$

$$\begin{array}{r} -\frac{3}{4} \\ \hline -\frac{3}{4} \end{array} \rightarrow \frac{6}{8}$$

$$\frac{2x}{2} = \frac{1}{8} \div 2$$

$$x = \frac{1}{8} \cdot \frac{1}{2} = \frac{1}{16}$$

HW: 4-3B Rationals WS