

Math 7 - Unit 2b

Day 2 - Add & Subtract One-Step Equations with Rational Numbers

Lesson Objectives:

- I can solve an one-step equation with rational numbers by adding & subtracting.
- I know how to show work when solving equations.

Steps for Solving Equations

Step #1 Get rid of the constant

Question: What happens if the **constant** is a fraction or decimal? Nothing new. It's the same process!

$$X + 4.3 = 10 \quad X - \frac{3}{4} = 10$$

Solve each equation. Be sure to show ALL work.

1. $4.2 = t + 1.8$
 $\begin{array}{r} 4.2 = t + 1.8 \\ -1.8 \quad -1.8 \\ \hline 2.4 = t \end{array}$ Subtraction (=)

2. $y - 5.7 = -4.0$
 $\begin{array}{r} y - 5.7 = -4.0 \\ +5.7 \quad +5.7 \\ \hline y = 1.7 \end{array}$ Addition (=)

3. $-9.3 = d - 3.4$
 $\begin{array}{r} -9.3 = d - 3.4 \\ +3.4 \quad +3.4 \\ \hline -5.9 = d \end{array}$ Addition (=)

4. $4.58 + y = 2.5$
 $\begin{array}{r} 4.58 + y = 2.5 \\ -4.58 \quad -4.58 \\ \hline y = -2.08 \end{array}$ Subtraction (=)

Solve each equation. Be sure to show ALL work.

5. $\frac{5}{16} = z - \frac{7}{16}$
 $\begin{array}{r} \frac{5}{16} = z - \frac{7}{16} \\ +\frac{7}{16} \quad +\frac{7}{16} \\ \hline \frac{12}{16} = z \end{array}$ Addition (=) $\frac{3}{4} = z$

6. $-\frac{5}{11} + p = -\frac{2}{11}$
 $\begin{array}{r} -\frac{5}{11} + p = -\frac{2}{11} \\ +\frac{5}{11} \quad +\frac{5}{11} \\ \hline p = \frac{3}{11} \end{array}$ Addition (=)

7. $3\frac{1}{2} = q + \frac{2}{3} \cdot 2$
 $\begin{array}{r} 3\frac{1}{2} = q + \frac{4}{3} \\ -\frac{4}{3} \quad -\frac{4}{3} \\ \hline -\frac{1}{6} = q \end{array}$ Subtraction (=)

8. $p - 3\frac{1}{6} = -2\frac{1}{2}$
 $\begin{array}{r} p - 3\frac{1}{6} = -2\frac{1}{2} \\ p - \frac{19}{6} = -\frac{5}{2} \\ +\frac{19}{6} \quad +\frac{19}{6} \\ \hline p = \frac{4}{6} \end{array}$ Addition (=) $p = \frac{2}{3}$

Homework

Record & Practice Journal pg 41-44

* Individual Think Time *



What to do if you get stuck...

- Reread the problem. Did you write it down correctly?
- Reread your notes. Is there a problem similar that we did together in class?
- Find a problem similar in your book. Try this one to see if it helps.
- Skip the problem until the end of Individual Think Time. Then ask an "educated" question of a neighbor or Mrs. Call.

Today we're working by...

