

8th Grade Lesson 61

- I can solve two-step equations.



Solve using the multiplication-division rule.

$$\frac{3}{1} \cdot \frac{x}{3} = 2 \cdot 3$$
$$x = 6$$

$$\frac{3x}{3} = \frac{18}{3}$$
$$x = 6$$

Solve using the addition-subtraction rule.

$$\begin{array}{r} x + 2 = 8 \\ \underline{-2} \quad \underline{-2} \\ x = 6 \end{array}$$

$$\begin{array}{r} x - 3 = 3 \\ \underline{+3} \quad \underline{+3} \\ x = 6 \end{array}$$

$$\begin{array}{r} 8 \\ \underline{-2} \\ 6 \end{array} \quad \begin{array}{l} x + 2 - 2 = 8 - 2 \\ x = 6 \end{array}$$

$$\begin{array}{r} 3x + 2 = 7 \\ \downarrow \quad \underline{-2} \quad \downarrow \quad \underline{-2} \\ \underline{3x} \quad = \quad \underline{5} \\ \underline{3} \quad \quad \quad \underline{3} \\ x = \frac{5}{3} \end{array}$$

$$\frac{2}{3}x - \frac{1}{2} = \frac{10}{3}$$

$$\downarrow \quad \underline{+\frac{1}{2}} \quad \underline{+\frac{1}{2}}$$

$$\frac{2}{3} \cdot \frac{2}{3}x = \frac{23}{2} \cdot \frac{3}{4}$$

$$x = \frac{23}{4}$$

$$\frac{10}{3} = \frac{20}{3}$$

$$\underline{+\frac{1}{2} = \frac{3}{6}}$$

$$\frac{23}{6}$$

$$2\frac{1}{3}x - 1\frac{1}{5} = \frac{23}{10}$$

$$\frac{7}{3}x - \frac{6}{5} = \frac{23}{10}$$

$$\underline{+\frac{6}{5}} \quad \underline{+\frac{6}{5}}$$

$$\frac{7}{3} \cdot \frac{3}{2}x = \frac{35}{2} \cdot \frac{3}{4}$$

$$x = \frac{3}{2}$$

$$\frac{23}{10}$$

$$\underline{+\frac{6}{5} = \frac{12}{10}}$$

$$\frac{35}{10}$$

Assignment....due Monday, January 7

2-Step Equations

1. $\frac{2}{3}x - \frac{1}{6} = \frac{1}{2}$

2. $2\frac{1}{2}x + \frac{1}{8} = \frac{1}{4}$

3. $1\frac{1}{4}x - \frac{1}{3} = \frac{2}{5}$

4. $\frac{2}{7}x + \frac{1}{5} = 2\frac{1}{10}$

17. }
18. } Pg. 197
19. }

Assignment:

2-Step Equations

