

Homework #54 - Solving Equations with Rational Numbers

Solve the following equations. Round to the nearest hundredth if necessary.

1) $x - \frac{2}{3} = 17$

$$\begin{array}{r} +\frac{2}{3} \\ +\frac{2}{3} \\ \hline x = 17\frac{2}{3} \end{array}$$

2) $b - 2.7 = -38$

$$\begin{array}{r} +2.7 \\ +2.7 \\ \hline b = -40.7 \end{array}$$

3) $\frac{3}{4}(4x - 8) = 12$

$$\begin{array}{r} 3x - 6 = 12 \\ +6 \quad +6 \\ \hline 3x = 18 \\ \hline x = 6 \end{array}$$

4) $0.25(32n + 28) = 31$

$$\begin{array}{r} 8n + 7 = 31 \\ -7 \quad -7 \\ \hline 8n = 24 \\ \hline n = 3 \end{array}$$

5) $-\frac{1}{3}x + 3 + \frac{3}{4}x = 13$

$$\begin{array}{r} \frac{5}{12}x + 3 = 13 \\ -3 \quad -3 \\ \hline \frac{5}{12}x = 10 \end{array}$$

$$\begin{array}{r} \frac{5}{12}x = 10 \\ \hline \frac{5}{12} \quad \frac{5}{12} \\ \hline x = 24 \end{array}$$

6) $0.15x + 0.8 - 0.4x = -1.2$

$$\begin{array}{r} -0.25x + 0.8 = -1.2 \\ -0.8 \quad -0.8 \\ \hline -0.25x = -2 \end{array}$$

$$\begin{array}{r} -0.25x = -2 \\ \hline -0.25 \quad -0.25 \\ \hline x = 8 \end{array}$$