Solve. Show your work.

31. A restaurant used \( 8 \frac{5}{6} \) pounds of rice on Monday and \( 5 \frac{1}{6} \) pounds of rice on Tuesday. How many more pounds of rice was used on Monday than on Tuesday?

\[
3 \frac{2}{3} \text{ lbs.}
\]

32. Janet has \( 9 \frac{2}{3} \) feet of cloth. She needs to cut it into lengths of \( \frac{1}{3} \) feet. How many complete lengths can she cut?

\[
9 \frac{2}{3} \div \frac{1}{3} = \frac{29}{3} \cdot \frac{3}{1} = \frac{29}{1} = 29 \text{ lengths}
\]
33. A recipe calls for \(2 \frac{1}{2}\) cups of walnuts. Only \(\frac{5}{6}\) cup of walnuts are on hand. How many more cups of walnuts does a chef need for the recipe?

\[
\frac{3}{2} - \frac{5}{6} \quad \text{or} \quad 1 \frac{2}{3} \text{c}
\]

\[
\frac{5}{2} - \frac{5}{6} = \frac{10}{6} = 1 \frac{4}{6} = 1 \frac{2}{3}
\]
34. The sum of two rational numbers is $-8\frac{1}{4}$. If one of the numbers is $-5\frac{2}{3}$, find the other number.

\[
\begin{align*}
-2\frac{7}{12} + ? &= -8\frac{1}{4} - \frac{8}{6} \\
-8\frac{1}{4} + (+5\frac{2}{3}) &= a \underline{+} \sqrt{a} = 8
\end{align*}
\]

35. Parcel P weighs $4\frac{1}{2}$ pounds, Parcel Q weighs $3\frac{2}{5}$ pounds and Parcel R weighs $6\frac{4}{5}$ pounds. Find the average weight of the three parcels.

\[
\begin{align*}
-8\frac{3}{12} + 5\frac{8}{12} &= -8\frac{3}{12} + \frac{68}{12} = \frac{-99 + 68}{12} = \frac{-31}{12} = -2\frac{7}{12}
\end{align*}
\]
35. Parcel P weighs $4\frac{1}{2}$ pounds, Parcel Q weighs $3\frac{2}{5}$ pounds and Parcel R weighs $6\frac{4}{5}$ pounds. Find the average weight of the three parcels.

\[ 4\frac{1}{2} + 3\frac{2}{5} + 6\frac{4}{5} = \frac{4\times5+1}{2} + \frac{3\times5+2}{5} + \frac{6\times5+4}{5} = \frac{21}{2} + \frac{17}{5} + \frac{34}{5} = \frac{105+34+68}{10} = \frac{207}{10} = 14\frac{7}{10} \]

\[ \frac{14\frac{7}{10}}{3} = \frac{147}{10} \cdot \frac{1}{3} = \frac{49}{10} = 4\frac{9}{10} \text{ lbs} \]