

Name: _____

Adding Fractions

with the Unlike Denominator, Requires Simplifying

$$\begin{array}{r} \frac{1}{3} \\ + \frac{1}{6} \\ \hline \end{array} \quad \begin{array}{r} \frac{1}{3} = \frac{2}{6} \\ + \frac{1}{6} = \frac{1}{6} \\ \hline \end{array} \quad \begin{array}{r} \frac{1}{3} = \frac{2}{6} \\ + \frac{1}{6} = \frac{1}{6} \\ \hline \end{array} \quad \begin{array}{r} \frac{1}{3} = \frac{2}{6} \\ + \frac{1}{6} = \frac{1}{6} \\ \hline \frac{3}{6} \end{array} \quad \begin{array}{r} \frac{1}{3} \\ + \frac{1}{6} \\ \hline \frac{3}{6} = \frac{1}{2} \end{array}$$

Add the fractions and simplify the answers.

a. $\frac{2}{12}$
 $+ \frac{1}{6}$

b. $\frac{4}{8}$
 $+ \frac{1}{4}$

c. $\frac{3}{5}$
 $+ \frac{2}{10}$

d. $\frac{1}{3}$
 $+ \frac{3}{9}$

e. $\frac{2}{10}$
 $+ \frac{2}{5}$

f. $\frac{3}{6}$
 $+ \frac{2}{12}$

g. $\frac{1}{2}$
 $+ \frac{1}{10}$

h. $\frac{1}{6}$
 $+ \frac{1}{3}$

i. $\frac{1}{6}$
 $+ \frac{4}{12}$

j. $\frac{1}{4}$
 $+ \frac{2}{8}$

k. $\frac{1}{5}$
 $+ \frac{2}{10}$

l. $\frac{4}{14}$
 $+ \frac{1}{7}$

m. $\frac{1}{4}$
 $\frac{1}{3}$
 $+ \frac{3}{12}$

n. $\frac{1}{2}$
 $\frac{1}{10}$
 $+ \frac{1}{5}$

o. $\frac{1}{14}$
 $\frac{2}{7}$
 $+ \frac{1}{7}$

p. $\frac{1}{8}$
 $\frac{1}{2}$
 $+ \frac{1}{8}$

ANSWER KEY

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The diagram illustrates the process of adding fractions with unlike denominators. It shows the following steps:

- Initial fractions: $\frac{1}{3}$ and $\frac{1}{6}$.
- Conversion of $\frac{1}{3}$ to $\frac{2}{6}$ (multiplying numerator and denominator by 2).
- Conversion of $\frac{1}{6}$ to $\frac{1}{6}$ (no change).
- Adding the fractions: $\frac{2}{6} + \frac{1}{6} = \frac{3}{6}$.
- Simplifying the result: $\frac{3}{6} = \frac{1}{2}$.

Add the fractions and simplify the answers.

a.

e.

i.

m.