

Name: _____

Subtracting Mixed Numbers

with Like Denominators, Requires Simplifying

$$\begin{array}{r}
 3 \frac{3}{8} \\
 - 2 \frac{1}{8} \\
 \hline
 \end{array}$$

Diagram illustrating the subtraction process:

- Step 1: $3 \frac{3}{8} - 2 \frac{1}{8}$ (same denominators)
- Step 2: Borrowing 1 from the whole number 3 to convert it to $2 \frac{8}{8}$, then adding the 8/8 to the 3/8 to get $11 \frac{8}{8}$.
- Step 3: $11 \frac{8}{8} - 2 \frac{1}{8} = 9 \frac{7}{8}$
- Step 4: Simplifying the result: $9 \frac{7}{8} = 1 \frac{2}{8} = 1 \frac{1}{4}$

Subtract the fractions and simplify the answers.

a. $5 \frac{4}{6}$
 $- 4 \frac{2}{6}$

b. $6 \frac{3}{4}$
 $- 1 \frac{1}{4}$

c. $9 \frac{5}{10}$
 $- 5 \frac{3}{10}$

d. $8 \frac{6}{8}$
 $- 6 \frac{4}{8}$

e. $3 \frac{4}{9}$
 $- 1 \frac{1}{9}$

f. $2 \frac{3}{12}$
 $- 1 \frac{1}{12}$

g. $7 \frac{9}{10}$
 $- 5 \frac{5}{10}$

h. $2 \frac{7}{14}$
 $- 2 \frac{3}{14}$

i. $5 \frac{4}{6}$
 $- 4 \frac{2}{6}$

j. $6 \frac{5}{8}$
 $- 4 \frac{1}{8}$

k. $4 \frac{8}{9}$
 $- 3 \frac{2}{9}$

l. $1 \frac{6}{12}$
 $- 1 \frac{3}{12}$

m. $6 \frac{6}{10}$
 $- 3 \frac{2}{10}$

n. $5 \frac{6}{14}$
 $- 4 \frac{4}{14}$

o. $7 \frac{6}{12}$
 $- 1 \frac{4}{12}$

p. Tom walked $2 \frac{5}{6}$ miles on Wednesday.

He walked $1 \frac{1}{6}$ miles on Thursday.

How many more miles did he walk on Wednesday?

ANSWER KEY

Subtracting Mixed Numbers

with Like Denominators, Requires Simplifying

The diagram shows the subtraction of $3\frac{3}{8}$ minus $2\frac{1}{8}$ in three stages:

- The initial problem: $3\frac{3}{8}$ minus $2\frac{1}{8}$.
- The first step: A bracket labeled "same" indicates that the denominators are the same. An arrow points from the $\frac{3}{8}$ to the $\frac{1}{8}$, showing that the fractions can be subtracted directly.
- The second step: The result is $1\frac{2}{8}$. A bracket indicates that the fraction $\frac{2}{8}$ can be simplified to $\frac{1}{4}$.

The final result is $1\frac{2}{8} = 1\frac{1}{4}$.

Subtract the fractions and simplify the answers.

a. $5\frac{4}{6}$
 $- 4\frac{2}{6}$

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

b. $6\frac{3}{4}$
 $- 1\frac{1}{4}$

 $5\frac{2}{4} = 5\frac{1}{2}$

c. $9\frac{5}{10}$
 $- 5\frac{3}{10}$

 $4\frac{2}{10} = 4\frac{1}{5}$

d. $8\frac{6}{8}$
 $- 6\frac{4}{8}$

 $2\frac{2}{8} = 2\frac{1}{4}$

e. $3\frac{4}{9}$
 $- 1\frac{1}{9}$

 $2\frac{3}{9} = 2\frac{1}{3}$

f. $2\frac{3}{12}$
 $- 1\frac{1}{12}$

 $2\frac{2}{12} = 2\frac{1}{6}$

g. $7\frac{9}{10}$
 $- 5\frac{5}{10}$

 $2\frac{4}{10} = 2\frac{2}{5}$

h. $2\frac{7}{14}$
 $- 2\frac{3}{14}$

 $\frac{4}{14} = \frac{2}{7}$

i. $5\frac{4}{6}$
 $- 4\frac{2}{6}$

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

j. $6\frac{5}{8}$
 $- 4\frac{1}{8}$

 $2\frac{4}{8} = 2\frac{1}{2}$

k. $4\frac{8}{9}$
 $- 3\frac{2}{9}$

 $1\frac{6}{9} = 1\frac{2}{3}$

l. $1\frac{6}{12}$
 $- 1\frac{3}{12}$

 $\frac{3}{12} = \frac{1}{4}$

m. $6\frac{6}{10}$
 $- 3\frac{2}{10}$

 $3\frac{4}{10} = 3\frac{2}{5}$

n. $5\frac{6}{14}$
 $- 4\frac{4}{14}$

 $5\frac{2}{14} = 5\frac{1}{7}$

o. $7\frac{6}{12}$
 $- 1\frac{4}{12}$

 $6\frac{2}{12} = 6\frac{1}{6}$

p. Tom walked $2\frac{5}{6}$ miles on Wednesday.

He walked $1\frac{1}{6}$ miles on Thursday.

How many more miles did he walk on Wednesday?

$$\begin{array}{r} 2\frac{5}{6} \\ - 1\frac{1}{6} \\ \hline 1\frac{4}{6} = 1\frac{2}{3} \end{array}$$