

November 14, 2012
Math Bowl – Fractions – add and subtract

1. Add or subtract. Your final answer must be written as a mixed number in lowest terms.

$$\frac{5}{6} + \frac{2}{3} - (.6) + \frac{7}{10} =$$

Adding Mixed Numbers

Example 1.

First add the fractions.

Add the whole numbers.

$$\begin{array}{r} 1 \frac{2}{5} \\ + 3 \frac{1}{5} \\ \hline 4 \frac{3}{5} \end{array}$$

Example 2.

Write fractions with a common denominator.

Add the fractions.

Add the whole numbers.

$$\begin{array}{r} 4 \frac{1}{4} = 4 \frac{3}{12} \\ + 1 \frac{1}{3} = + 1 \frac{4}{12} \\ \hline 5 \frac{7}{12} \end{array}$$

Example 3.

Write fractions with a common denominator.

Add the fractions.

Add the whole numbers.

$$\begin{array}{r} 2 \frac{1}{2} = 2 \frac{3}{6} \\ + 1 \frac{2}{3} = + 1 \frac{4}{6} \\ \hline 3 \frac{7}{6} = 4 \frac{1}{6} \end{array}$$

Regroup so that the fraction is less than 1.

Add and reduce to lowest terms.

1.
$$\begin{array}{r} 2 \frac{1}{4} \\ + 3 \frac{1}{4} \\ \hline \end{array}$$

2.
$$\begin{array}{r} 6 \frac{1}{5} \\ + 3 \frac{2}{5} \\ \hline \end{array}$$

3.
$$\begin{array}{r} 1 \frac{1}{2} \\ + 3 \frac{1}{2} \\ \hline \end{array}$$

4.
$$\begin{array}{r} 3 \frac{3}{5} \\ + 1 \frac{2}{3} \\ \hline \end{array}$$

5.
$$\begin{array}{r} 8 \frac{3}{4} \\ + 4 \frac{2}{3} \\ \hline \end{array}$$

6.
$$\begin{array}{r} 8 \frac{1}{8} \\ + 6 \frac{3}{4} \\ \hline \end{array}$$

7.
$$\begin{array}{r} 7 \frac{4}{5} \\ + 3 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 2 \frac{5}{8} \\ + 2 \frac{5}{6} \\ \hline \end{array}$$

9.
$$\begin{array}{r} 3 \frac{1}{4} \\ + 8 \frac{5}{8} \\ \hline \end{array}$$

Subtracting Mixed Numbers

Step 1. Write fractions with a common denominator.

$$5\frac{2}{3} = 5\frac{4}{6}$$

Step 2. Subtract fractional numbers.

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

Step 3. Subtract whole numbers.

$$4\frac{1}{6}$$

Solve.

A.
$$\begin{array}{r} 4\frac{3}{4} \\ - 2\frac{1}{4} \\ \hline \end{array}$$

B.
$$\begin{array}{r} 6\frac{1}{2} \\ - 3\frac{1}{6} \\ \hline \end{array}$$

C.
$$\begin{array}{r} 6\frac{7}{8} \\ - 2\frac{3}{8} \\ \hline \end{array}$$

D.
$$\begin{array}{r} 12\frac{3}{4} \\ - 6\frac{2}{8} \\ \hline \end{array}$$

E.
$$\begin{array}{r} 9\frac{3}{4} \\ - 4\frac{1}{3} \\ \hline \end{array}$$

F.
$$\begin{array}{r} 11 \\ - 3\frac{1}{2} \\ \hline \end{array}$$

G.
$$\begin{array}{r} 9\frac{1}{3} \\ - 6\frac{1}{2} \\ \hline \end{array}$$

H.
$$\begin{array}{r} 12\frac{3}{8} \\ - 6 \\ \hline \end{array}$$

I.
$$\begin{array}{r} 6\frac{1}{4} \\ - 2\frac{1}{2} \\ \hline \end{array}$$

J.
$$\begin{array}{r} 6\frac{3}{8} \\ - 1\frac{3}{4} \\ \hline \end{array}$$

Adding Mixed Numbers

practice sheet 2

Add and reduce to lowest terms.

$$\begin{array}{r} 1. \quad 12 \frac{2}{3} \\ + 13 \frac{5}{9} \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 6 \frac{5}{8} \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 9 \frac{5}{9} \\ + 4 \frac{1}{3} \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 1 \frac{7}{8} \\ + 4 \frac{1}{4} \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 5 \frac{1}{2} \\ + 2 \frac{3}{4} \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 7 \frac{1}{3} \\ + 2 \frac{2}{3} \\ \hline \end{array}$$

Subtracting Fractions

with Unlike Denominators

Step 1: Find equivalent fractions and rewrite the problem so that the denominators are the same.

Step 2: Subtract the numerators.

Step 3: Use the same denominator.

example:

$$\begin{array}{r} \frac{1}{4} = \frac{2}{8} \\ - \frac{1}{8} = \frac{1}{8} \\ \hline \frac{1}{8} \end{array}$$

a.
$$\begin{array}{r} \frac{4}{8} \\ - \frac{1}{4} \\ \hline \end{array}$$

b.
$$\begin{array}{r} \frac{7}{12} \\ - \frac{3}{6} \\ \hline \end{array}$$

c.
$$\begin{array}{r} \frac{1}{2} \\ - \frac{1}{6} \\ \hline \end{array}$$

d.
$$\begin{array}{r} \frac{9}{10} \\ - \frac{1}{2} \\ \hline \end{array}$$

e.
$$\begin{array}{r} \frac{4}{6} \\ - \frac{1}{3} \\ \hline \end{array}$$

f.
$$\begin{array}{r} \frac{7}{10} \\ - \frac{2}{5} \\ \hline \end{array}$$