Lesson 9

Add and Subtract Fractions

Here's How

Add $\frac{4}{5}$ and $\frac{1}{2}$.

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

These fractions **do not** have the same denominator. Find the least common denominator.

Find the sum.

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

List the multiples to find the LCD.
5: 5, 10, 15, 20, . . .
2: 2, 4, 6, 8, 10, . . .
Rename each fraction using the LCD.

$\frac{4}{5} \times \frac{2}{2} = \frac{8}{10}$ Multiply $\frac{4}{5}$ by $\frac{2}{2}$ to get $\frac{8}{10}$.

$+\frac{1}{2} \times \frac{5}{5} = \frac{5}{10}$ Multiply $\frac{1}{2}$ by $\frac{5}{5}$ to get $\frac{5}{10}$.

$\frac{4}{5} = \frac{8}{10}$

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

Now add $\frac{8}{10}$ and $\frac{5}{10}$ to get $\frac{13}{10}$.

$\frac{13}{10} = 1\frac{3}{10}$ Write $\frac{13}{10}$ as a mixed number.

The **sum** of $\frac{4}{5}$ and $\frac{1}{2}$ is $1\frac{3}{10}$.

Try These

Find each sum or difference. Write the answer in lowest terms.

When adding or subtracting fractions with different denominators, find the LCD, rename each fraction with the common denominator, then add or subtract.

1. $\frac{1}{6} = \frac{4}{24}$
$+\frac{3}{4} = \frac{18}{24}$
$\frac{\square}{24} = \frac{\square}{\square}$

2. $\frac{3}{4} = \frac{9}{12}$
$+\frac{1}{3} = \frac{4}{12}$
$\frac{\square}{12} = \square\frac{\square}{\square}$

3. $\frac{4}{5}$
$+\frac{2}{4}$

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

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

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

Answers: 1. $\frac{11}{12}$ 2. $1\frac{1}{12}$ 3. $1\frac{3}{10}$ 4. $\frac{7}{12}$ 5. $\frac{11}{24}$ 6. $\frac{5}{12}$

Name _____

Go Ahead

Find each sum or difference. Write the answer in lowest terms.

Watch closely. Sometimes you may only have to rename one of the fractions.

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

2. $\frac{1}{4} + \frac{1}{5}$

3. $\frac{7}{10} + \frac{1}{2}$

4. $\frac{10}{12} - \frac{1}{3}$

5. $\frac{1}{3} - \frac{1}{5}$

6. $\frac{1}{2} - \frac{5}{12}$

7. $\frac{4}{5} - \frac{2}{4}$

8. $\frac{1}{12} + \frac{1}{3}$

9. $\frac{3}{4} - \frac{1}{2}$

Rewrite the problem before you add or subtract.

10. $\frac{8}{15} - \frac{1}{5}$

11. $\frac{1}{2} + \frac{3}{4}$

12. $\frac{3}{4} - \frac{1}{3}$

13. A cookie recipe uses $\frac{1}{4}$ cup of sugar and $\frac{1}{3}$ cup of brown sugar. How much sugar is used in all?

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14. Maria walked $\frac{3}{4}$ of a mile to the store. Then she walked $\frac{1}{3}$ of a mile to the bank. How far did she walk in all?

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