

Add and Subtract Fractions with Unlike Denominators

When adding and subtracting fractions with unlike denominators, it helps to write the problems in vertical form.

Add $\frac{7}{8} + \frac{2}{3}$. Subtract $\frac{7}{8} - \frac{2}{3}$.

Step 1

Find the least common denominator (LCD).

Multiples of 3:

3, 6, 9, 12, 15, 18, 21, **24**, ...

Multiples of 8: 8, 16, **24**, ...

The LCD is 24.

Step 2

Rename each fraction using the LCD.

$$\frac{7}{8} = \frac{21}{24}$$

$$\frac{2}{3} = \frac{16}{24}$$

Step 3

Write the problems in vertical form.

Add.

$$\frac{7}{8} = \frac{21}{24}$$

$$+ \frac{2}{3} = + \frac{16}{24}$$

$$\frac{37}{24} = 1 \frac{13}{24}$$

Subtract.

$$\frac{7}{8} = \frac{21}{24}$$

$$- \frac{2}{3} = - \frac{16}{24}$$

$$\frac{5}{24}$$

Add or subtract. Write your answer in simplest form.

1. $\frac{3}{8} + \frac{5}{6}$

2. $\frac{11}{12} - \frac{3}{4}$

Multiples of 8: _____

Multiples of 12: _____

Multiples of 6: _____

Multiples of 4: _____

LCD: _____

LCD: _____

So, $\frac{3}{8} + \frac{5}{6} =$ _____.

So, $\frac{11}{12} - \frac{3}{4} =$ _____.

3. $\frac{4}{5} - \frac{2}{3} =$ _____

4. $\frac{3}{5} + \frac{9}{10} =$ _____

5. $\frac{9}{10} - \frac{5}{6} =$ _____

6. $\frac{7}{10} + \frac{3}{4} =$ _____

7. $\frac{5}{8} - \frac{2}{5} =$ _____

8. $\frac{3}{4} + \frac{5}{6} =$ _____

9. $\frac{1}{2} - \frac{3}{8} =$ _____

10. $\frac{1}{2} + \frac{3}{8} =$ _____

11. $\frac{3}{5} + \frac{3}{4} =$ _____

12. $\frac{7}{12} - \frac{1}{3} =$ _____

13. $\frac{5}{6} + \frac{5}{8} =$ _____

14. $\frac{7}{10} - \frac{2}{5} =$ _____