

# SUBTRACT FRACTIONS WITH UNLIKE DENOMINATORS AND SIMPLIFY THE DIFFERENCE

## PROBLEM

Subtract:  $\frac{14}{15} - \frac{7}{20}$  (Simplify the answer if possible.)

## STEP 1

Find the least common denominator for 15 and 20 by finding the least common multiple of the two numbers.

Multiples of 15: 15, 30, 45, **60**

Multiples of 20: 20, 40, **60**, 80

The least common multiple of 15 and 20 is 60, so the least common denominator is 60.

## STEP 2

Change each fraction to an equivalent fraction with the denominator 60.

$$\begin{array}{r} \frac{14}{15} \\ - \frac{7}{20} \\ \hline \end{array} \rightarrow \begin{array}{r} \frac{14 \times 4}{15 \times 4} \\ - \frac{7 \times 3}{20 \times 3} \\ \hline \end{array} \rightarrow \begin{array}{r} \frac{56}{60} \\ - \frac{21}{60} \\ \hline \end{array}$$

## STEP 3

Subtract the fractions.

$$\begin{array}{r} \frac{56}{60} \\ - \frac{21}{60} \\ \hline \frac{35}{60} \end{array}$$

## STEP 4

Simplify the answer.

$$\frac{35 \div 5}{60 \div 5} = \frac{7}{12}$$

## ANSWER

$$\frac{14}{15} - \frac{7}{20} = \frac{7}{12}$$