Finding the LCD of three or more fractions can be trickier than finding a polar bear in a snowstorm! Follow the steps below and learn how to use prime factorization to make the job easier.

1. Prime factorize the denominators.
2. Find the largest group of each prime factor and circle it.
3. Multiply all of the circled groups together; this is the LCD.
4. Find the equivalent form of each fraction with the LCD as the denominator.
5. Solve the problem and reduce the answer if necessary.

EXAMPLE

\[
\frac{7}{12} + \frac{5}{18} + \frac{1}{20} = \]

\[
\frac{7}{2 \times 2 \times 3} + \frac{5}{2 \times 3 \times 3} + \frac{1}{2 \times 2 \times 5}
\]

\[
\frac{7}{2 \times 2 \times 3} + \frac{5}{2 \times 3 \times 3} + \frac{1}{2 \times 2 \times 5}
\]

\[
\text{LCD} = 2 \times 2 \times 3 \times 3 \times 5 = 180
\]

\[
\frac{7 \times 15}{12 \times 15} + \frac{5 \times 10}{18 \times 10} + \frac{1 \times 9}{20 \times 9}
\]

\[
\frac{105}{180} + \frac{50}{180} + \frac{9}{180} = \frac{164}{180} = \frac{41}{45}
\]

Following the steps above, do the problems below! Write each final reduced answer in the polar bear below its problem.

1. \(\frac{8}{15} + \frac{9}{20} + \frac{5}{6} = \)
2. \(\frac{8}{9} + \frac{1}{6} - \frac{1}{4} = \)
3. \(\frac{13}{14} - \frac{6}{35} - \frac{3}{10} = \)
4. \(\frac{3}{4} - \frac{4}{7} + \frac{1}{3} = \)