Adding Fractions with Unlike Denominators

Danisha ate \( \frac{2}{3} \) cup of yogurt at breakfast. She ate \( \frac{1}{4} \) cup of yogurt at lunch. How much yogurt did she eat today?

You can add fractions with unlike denominators.

**Step 1:** Find the least common denominator of the two fractions.

- **Multiples of 3:** 3, 6, 9, 12, 15
- **Multiples of 4:** 4, 8, 12, 16, 20

\[
\frac{2}{3} = \frac{8}{12} \quad \text{and} \quad \frac{1}{4} = \frac{3}{12}
\]

**Step 2:** Once you have equivalent fractions with the same denominator, add the numerators.

\[
8 + 3 = 11
\]

So, \( \frac{8}{12} + \frac{3}{12} = \frac{11}{12} \).

**Step 3:** Place the sum over the common denominator and simplify your fraction if possible.

Danisha ate \( \frac{11}{12} \) cup of yogurt today.

For 1 through 5, find each sum. Simplify if possible.

1. \[
\frac{3}{5} + \frac{1}{6} = \]

2. \[
\frac{2}{9} + \frac{2}{6} = \]

3. \[
\frac{3}{8} + \frac{3}{12} = \]

4. \[
\frac{1}{4} + \frac{1}{6} + \frac{3}{4} = \]

5. \[
\frac{2}{9} + \frac{1}{9} + \frac{1}{6} = \]

6. Kevin and some friends baked different loaves of bread and cut them into different numbers of slices. They ate \( \frac{1}{4} \) of one loaf, \( \frac{1}{4} \) of another, \( \frac{5}{12} \) of another, and \( \frac{1}{12} \) of another. Did they eat the equivalent of a whole loaf?

7. Cathy wakes up at 7:00 A.M. each morning. She spends \( \frac{1}{10} \) hour making her bed, \( \frac{1}{5} \) hour eating breakfast, and \( \frac{1}{2} \) hour getting ready for school. How long does Cathy spend doing these things each morning?