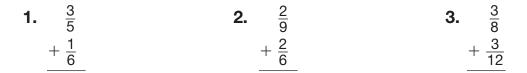# Adding Fractions with Unlike Denominators

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.	**Step 2:** Once you have equivalent fractions with the same denominator, add the numerators.	**Step 3:** Place the sum over the common denominator and simplify your fraction if possible.
multiples of 3: 3, 6, 9, 12, 15 **multiples of 4:** 4, 8, 12, 16, 20 $\frac{2}{3} = \frac{8}{12}$ and $\frac{1}{4} = \frac{3}{12}$	$8 + 3 = 11$ So, $\frac{8}{12} + \frac{3}{12} = \frac{11}{12}$.	Danisha ate $\frac{11}{12}$ cup of yogurt today.

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

1. $\quad \frac{3}{5}$
$+ \frac{1}{6}$
_____

2. $\quad \frac{2}{9}$
$+ \frac{2}{6}$
_____

3. $\quad \frac{3}{8}$
$+ \frac{3}{12}$
_____

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?
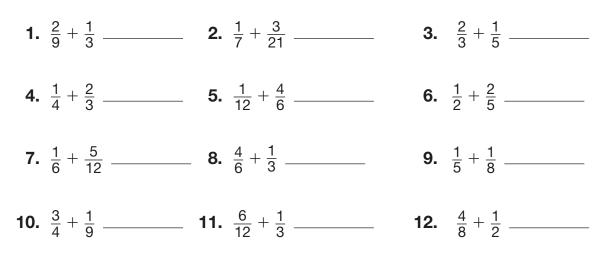
_____

Name _____

Adding Fractions with Unlike Denominators

Find each sum. Simplify if necessary.

1. $\frac{2}{9} + \frac{1}{3}$ _____   **2.** $\frac{1}{7} + \frac{3}{21}$ _____   **3.** $\frac{2}{3} + \frac{1}{5}$ _____

4. $\frac{1}{4} + \frac{2}{3}$ _____   **5.** $\frac{1}{12} + \frac{4}{6}$ _____   **6.** $\frac{1}{2} + \frac{2}{5}$ _____

7. $\frac{1}{6} + \frac{5}{12}$ _____   **8.** $\frac{4}{6} + \frac{1}{3}$ _____   **9.** $\frac{1}{5} + \frac{1}{8}$ _____

10. $\frac{3}{4} + \frac{1}{9}$ _____   **11.** $\frac{6}{12} + \frac{1}{3}$ _____   **12.** $\frac{4}{8} + \frac{1}{2}$ _____

Jeremy collected nickels for one week. He is making stacks of his nickels to determine how many he has. The thickness of one nickel is $\frac{1}{16}$ inch.

13. How tall is a stack of 16 nickels?

_____

14. What is the combined height of 3 nickels, 2 nickels, and 1 nickel?

_____

15. What is the sum of $\frac{5}{30} + \frac{4}{6}$?

A $\frac{5}{6}$ **B** $\frac{7}{9}$ **C** $\frac{2}{3}$ **D** $\frac{9}{12}$

16. How do you rename $\frac{2}{5}$ so you can add it to $\frac{11}{25}$? What is the sum?

_____

_____