Name _____

Reteaching
9-8

Subtracting Fractions with Unlike Denominators

You can subtract fractions with unlike denominators by using the least common multiple (LCM) and the least common denominator (LCD).

Beth wants to exercise for $\frac{4}{5}$ hour. So far, she has exercised for $\frac{2}{3}$ hour. What fraction of an hour does she have left to go?

Step 1: Find the LCM of 5 and 3.

multiples of 5: 5, 10, 15, 20

multiples of 3: 3, 6, 9, 12, 15

Since 15 is the LCM, it is also your LCD.

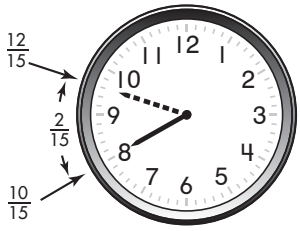
Step 2: Using your LCD, write the equivalent fractions.

$\frac{4}{5} \xrightarrow{\times 3} \frac{12}{15}$ $\frac{2}{3} \xrightarrow{\times 5} \frac{10}{15}$

$\frac{4}{5} = \frac{12}{15}$ and

$\frac{2}{3} = \frac{10}{15}$

Step 3: Subtract the numerators. Place the difference over the LCD. Simplify if possible.



$\frac{12}{15} - \frac{10}{15} = \frac{2}{15}$

Beth has $\frac{2}{15}$ hour left.

In **1** through **7**, find each difference. Simplify if possible.

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

2. $\frac{7}{10} - \frac{1}{5}$ = _____

3. $\frac{8}{8} - \frac{4}{9}$ = _____

4. $\frac{17}{18} - \frac{2}{3}$ = _____

5. $\frac{7}{12} - \frac{1}{4} =$ ____

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

7. $\frac{23}{24} - \frac{7}{8} =$ ____

8. Natasha had $\frac{7}{8}$ gallon of paint. Her brother Ivan took $\frac{1}{4}$ gallon to paint his model boat. Natasha needs at least $\frac{1}{2}$ gallon to paint her bookshelf. Did Ivan leave her enough paint?

_____

Name _____

Practice
9-8

Subtracting Fractions with Unlike Denominators

Find the difference. Simplify if necessary.

1. $\frac{10}{12} - \frac{1}{4}$ _____ **2.** $\frac{9}{10} - \frac{3}{5}$ _____ **3.** $\frac{7}{8} - \frac{2}{6}$ _____

4. $\frac{7}{12} - \frac{1}{4}$ _____ **5.** $\frac{4}{5} - \frac{1}{3}$ _____ **6.** $\frac{2}{3} - \frac{1}{6}$ _____

7. $\frac{4}{8} - \frac{1}{4}$ _____ **8.** $\frac{4}{10} - \frac{1}{5}$ _____ **9.** $\frac{9}{9} - \frac{2}{3}$ _____

10. $\frac{9}{15} - \frac{1}{3}$ _____ **11.** $\frac{4}{12} - \frac{1}{6}$ _____ **12.** $\frac{14}{20} - \frac{3}{5}$ _____

13. The pet shop owner told Jean to fill her new fish tank $\frac{3}{4}$ full with water. Jean filled it $\frac{9}{12}$ full. What fraction of the tank does Jean still need to fill? _____

14. Paul's dad made a turkey potpie for dinner on Wednesday. The family ate $\frac{4}{8}$ of the pie. On Thursday after school, Paul ate $\frac{2}{16}$ of the pie for a snack. What fraction of the pie remained? _____

15. Gracie read 150 pages of a book. The book is 227 pages long. Which equation shows the amount she still needs to read to finish the story?

A $150 - n = 227$

B $227 + 150 = n$

C $n - 150 = 227$

D $n + 150 = 227$

16. Why do fractions need to have a common denominator before you add or subtract them?

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_____

_____

_____

