## Lesson 7

Subtract Unlike Fractions

## Homework Helper

## eHelp

Need help? $\llbracket$ connectED.mcgraw-hill.com
Find $\frac{2}{5}-\frac{1}{10}$.
Estimate Use benchmark fractions.
$\frac{2}{5}-\frac{1}{10} \approx \frac{1}{2}-0=\frac{1}{2}$
Subtract $\frac{2}{5}-\frac{1}{10}$.
Write equivalent, like fractions using the least common denominator, LCD. The LCD of $\frac{2}{5}$ and $\frac{1}{10}$ is 10 .

$$
\begin{aligned}
\frac{2}{5}-\frac{1}{10} & =\frac{2 \times \sqrt[2]{2}}{5 \times \frac{1}{10}} & & \text { Write equivalent fractions using the LCD. } \\
& =\frac{4}{10}-\frac{1}{10} & & \text { Multiply. } \\
& =\frac{4-1}{10}, \text { or } \frac{3}{10} & & \text { Subtract like fractions. }
\end{aligned}
$$

So, $\frac{2}{5}-\frac{1}{10}=\frac{3}{10}$.
Check for Reasonableness Compare to your estimate. $\frac{3}{10} \approx \frac{1}{2}$

## Practice

## Subtract. Write each in simplest form.

1. $\frac{1}{2}-\frac{1}{4}=$ $\qquad$ 2. $\frac{7}{8}-\frac{1}{4}=$ $\qquad$ 3. $\frac{7}{12}-\frac{1}{6}=$
$\qquad$

## Problem Solving

4. The average rainfall in April and October for Springfield is shown in the table below. How much more rain falls on average in April than in October?

| Average Rainfall for <br> Springfield |  |
| :--- | :---: |
| Month | Rainfall (in.) |
| April | $\frac{11}{16}$ |
| October | $\frac{3}{8}$ |

5. Trisha helped clean up her neighborhood by picking up plastic. She collected $\frac{3}{4}$ pound of plastic the first day and $\frac{1}{6}$ pound of plastic the second day. How much more trash did she collect the first day than the second day?
6. Wyatt is hiking a trail that is $\frac{11}{12}$ mile long. After hiking $\frac{1}{4}$ mile, he stops for water. How much farther must he hike to finish the trail?

## Test Practice

7. The table shows the distance each student ran on Wednesday. How much farther did Joey run than Steve?
(A) $\frac{1}{12}$ mile
(C) $\frac{1}{2}$ mile
(B) $\frac{5}{12}$ mile
(D) $\frac{5}{6}$ mile

| Student | Distance (mi) |
| :--- | :---: |
| Steve | $\frac{1}{6}$ |
| Charlie | $\frac{1}{4}$ |
| Joey | $\frac{2}{3}$ |

