

Name _____

Subtract Related Fractions

Essential Question How can you subtract fractions when one denominator is a multiple of the other?

When you subtract fractions, you must use equal-size pieces.

To subtract fractions with different denominators, first find equivalent fractions with the same denominator. You can also compare to find the difference.

Activity

Materials ■ fraction strips

Find $\frac{5}{8} - \frac{1}{4}$.

One Way Find an equivalent fraction.

Model the problem.

Think: You need to subtract $\frac{1}{4}$ from $\frac{5}{8}$, but the $\frac{1}{4}$ strip and the $\frac{1}{8}$ strips are different sizes.

Show $\frac{1}{4}$ using $\frac{1}{8}$ strips.

$$\frac{1}{4} = \frac{\quad}{8}$$

Subtract. Use the equivalent fraction you found.

Find $\frac{5}{8} - \frac{2}{8}$.

Write the difference. $\frac{5}{8} - \frac{2}{8} = \underline{\quad}$

So, $\frac{5}{8} - \frac{1}{4} = \underline{\quad}$.

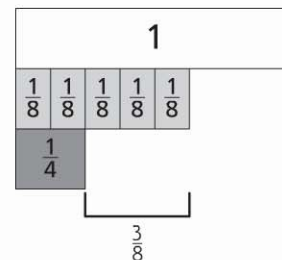
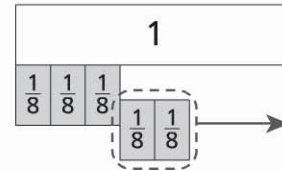
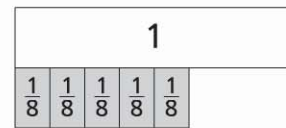
Another Way Compare to find the difference.

Model the problem.

Think: The $\frac{1}{4}$ strip is the same size as two $\frac{1}{8}$ strips.

Compare the $\frac{1}{4}$ strip to the five $\frac{1}{8}$ strips. Find the difference.

$$\frac{5}{8} - \frac{1}{4} = \underline{\quad}$$



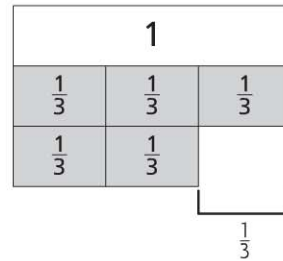
Math Talk

Explain how the $\frac{1}{4}$ strip is related to the $\frac{1}{8}$ strip. Then describe how the denominators 4 and 8 are related.

Share and Show



1. A student subtracted $\frac{2}{3}$ from 1 whole as shown at the right. Explain the student's method. Then find the difference.



2. Use fraction strips to subtract $\frac{5}{6} - \frac{1}{2}$.

$$\frac{5}{6} - \frac{1}{2} = \underline{\hspace{2cm}}$$

Subtract. Use fraction strips to help.

3. $\frac{1}{2} - \frac{3}{8} = \underline{\hspace{2cm}}$

4. $1 - \frac{2}{5} = \underline{\hspace{2cm}}$

5. $\frac{2}{4} - \frac{2}{12} = \underline{\hspace{2cm}}$

On Your Own

Subtract. Use fraction strips to help.

6. $\frac{4}{5} - \frac{2}{10} = \underline{\hspace{2cm}}$

7. $\frac{7}{8} - \frac{3}{4} = \underline{\hspace{2cm}}$

8. $\frac{5}{6} - \frac{2}{3} = \underline{\hspace{2cm}}$

9. $\frac{7}{10} - \frac{2}{5} = \underline{\hspace{2cm}}$

10. $\frac{2}{6} - \frac{1}{3} = \underline{\hspace{2cm}}$

11. $\frac{6}{8} - \frac{1}{2} = \underline{\hspace{2cm}}$

Problem Solving



12. Boris had $\frac{2}{3}$ of a book left to read. He read $\frac{1}{6}$ of the book today. What fraction of the book does he have left to read now? Explain how you found your answer.
