

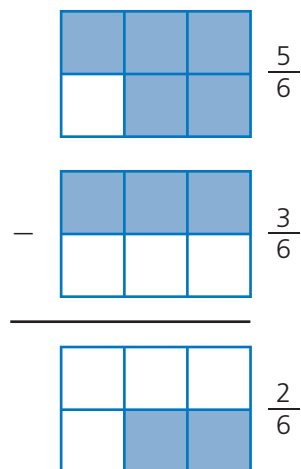
# Subtracting Fractions with Like Denominators

## 1 Here's How

To **subtract** fractions, the denominators must be the same. You can use models to subtract fractions with like denominators.

Do **not** subtract the denominators.

Look at this example.



What fractions do these figures show?

They show  $\frac{5}{6}$  and  $\frac{3}{6}$ .

The fractions have the same, or like, denominators, 6.

To subtract fractions with like denominators, subtract only the numerators.

The numerators are 5 and 3. Subtract:  $5 - 3 = 2$ .

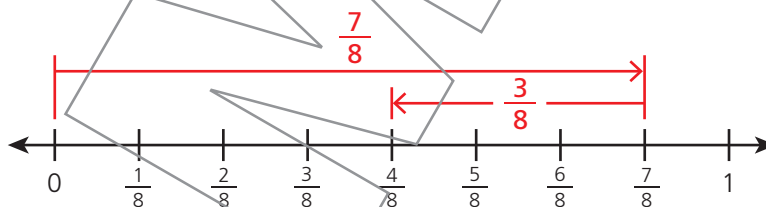
The numerator in the difference is 2.

The denominator does not change.

So the difference is  $\frac{2}{6}$  because 5 sixths  $-$  3 sixths  $=$  2 sixths.

## 2 Try It

Complete each step.



Subtract  $\frac{7}{8} - \frac{3}{8}$  on the number line.

What is the numerator of the fraction you are subtracting from? 7

Count up that many spaces on the number line. Mark the fraction and label it.

What is the numerator of the fraction you are subtracting? 3 Count down that many spaces from the first fraction on the number line. Mark the fraction and label it.

How many spaces from 0 is the difference? 4 This is the numerator.

The denominator stays the same. So, the difference is  $\frac{4}{8}$ .

The **difference** is the result in a subtraction problem.

### 3 On Your Own

Use the models to subtract the fractions.



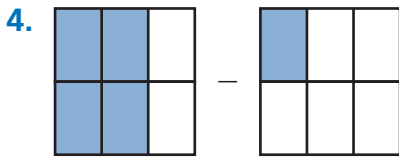
$$\frac{3}{4} - \frac{2}{4} = \frac{1}{4}$$



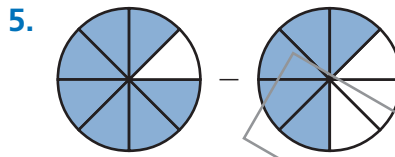
$$\frac{4}{5} - \frac{2}{5} = \frac{2}{5}$$



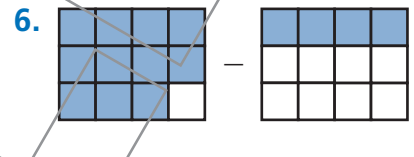
$$\frac{9}{10} - \frac{4}{10} = \frac{5}{10}$$



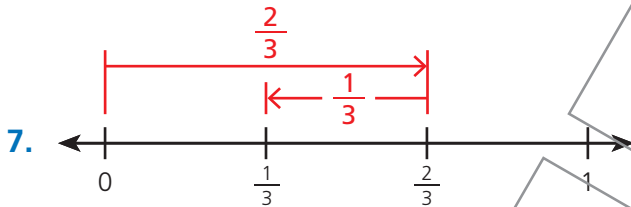
$$\frac{4}{6} - \frac{1}{6} = \frac{3}{6}$$



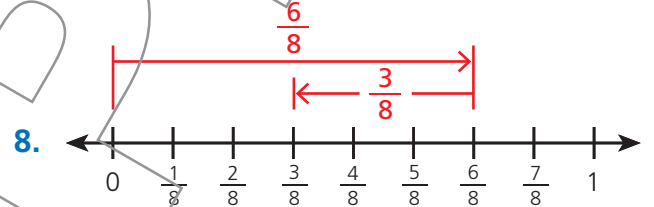
$$\frac{7}{8} - \frac{5}{8} = \frac{2}{8}$$



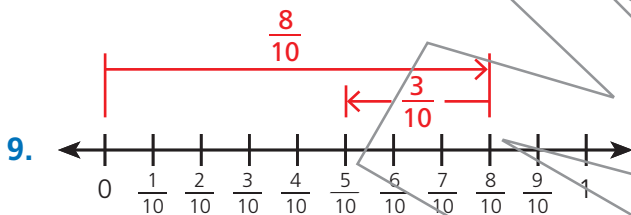
$$\frac{11}{12} - \frac{4}{12} = \frac{7}{12}$$



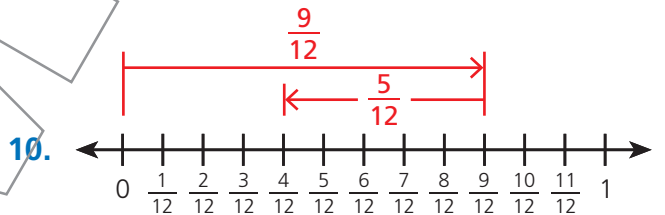
$$\frac{2}{3} - \frac{1}{3} = \frac{1}{3}$$



$$\frac{6}{8} - \frac{3}{8} = \frac{3}{8}$$



$$\frac{8}{10} - \frac{3}{10} = \frac{5}{10}$$



$$\frac{9}{12} - \frac{5}{12} = \frac{4}{12}$$

### 4 Think About It

Answer the question. Write your answer below.

11. Draw a model to subtract  $\frac{9}{10} - \frac{3}{10}$ . Tell why you picked that model.

*Drawings will vary but should show that  $\frac{9}{10} - \frac{3}{10} = \frac{6}{10}$ . Explanations will vary; example: I used a number line because I can count down from the starting fraction.*