

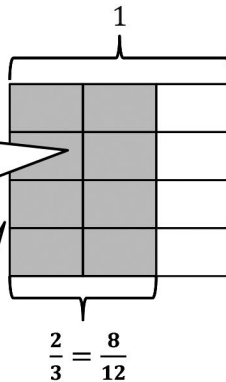
1. Find the difference. Use a rectangular fraction model to find a common unit. Simplify your answer, if possible.

$$\frac{2}{3} - \frac{1}{4} = \frac{5}{12}$$

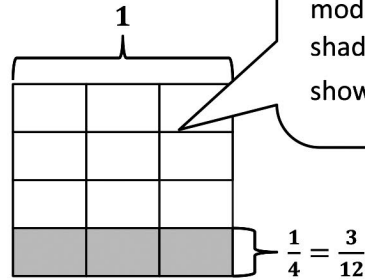
In order to subtract fourths from thirds, I need to find like units.

I draw 2 vertical lines to partition my model into thirds and shade 2 of them to show the fraction $\frac{2}{3}$.

In order to make like units, or common denominators, I draw 3 horizontal lines to partition the model into 12 equal parts. Now, I can see that $\frac{2}{3} = \frac{8}{12}$.



I draw 3 horizontal lines to partition my model into fourths and shade 1 of them to show the fraction $\frac{1}{4}$.



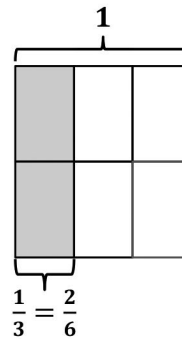
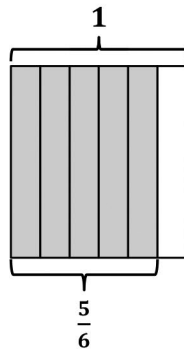
I still can't subtract. Fourth and twelfths are different units. But, I can draw 2 vertical lines to partition the model into 12 equal parts. Now, I have equal units and can see that $\frac{1}{4} = \frac{3}{12}$.

$$\frac{2}{3} - \frac{1}{4} = \frac{8}{12} - \frac{3}{12} = \frac{5}{12}$$

Once I have like units, the subtraction is simple. I know that 8 minus 3 is equal to 5, so I can think of this in unit form very simply.
8 twelfths – 3 twelfths = 5 twelfths

2. Lisbeth needs $\frac{1}{3}$ of a tablespoon of spice for a baking recipe. She has $\frac{5}{6}$ of a tablespoon in her pantry. How much spice will Lisbeth have after baking?

I'll need to subtract $\frac{1}{3}$ from $\frac{5}{6}$ to find out how much remains.



This was interesting! After drawing the $\frac{5}{6}$ that Lisbeth has in her pantry, I realized that thirds and sixths are related units. In this problem, I could leave $\frac{5}{6}$ as is and only rename the thirds as sixths to find a common unit.

$$\frac{5}{6} - \frac{1}{3} = \frac{5}{6} - \frac{2}{6} = \frac{3}{6}$$

I could also express $\frac{3}{6}$ as $\frac{1}{2}$ because they are equivalent fractions, but I don't have to.

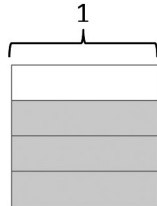
Lisbeth will have $\frac{3}{6}$ of a tablespoon of spice after baking.

In order to finish the problem, I must make a statement to answer the question.

Name _____

Date _____

1. The picture below shows $\frac{3}{4}$ of the rectangle shaded. Use the picture to show how to create an equivalent fraction for $\frac{3}{4}$, and then subtract $\frac{1}{3}$.



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

2. Find the difference. Use a rectangular fraction model to find common denominators. Simplify your answer, if possible.

a. $\frac{5}{6} - \frac{1}{3} =$

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

c. $\frac{5}{6} - \frac{1}{4} =$

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

e. $\frac{2}{3} - \frac{2}{5} =$

f. $\frac{5}{7} - \frac{2}{3} =$

3. Robin used $\frac{1}{4}$ of a pound of butter to make a cake. Before he started, she had $\frac{7}{8}$ of a pound of butter. How much butter did Robin have when he was done baking? Give your answer as a fraction of a pound.

4. Katrina needs $\frac{3}{5}$ kilogram of flour for a recipe. Her mother has $\frac{3}{7}$ kilogram of flour in her pantry. Is this enough flour for the recipe? If not, how much more will she need?

