5.4 Using Models to Subtract Fractions

Quick Review

At Home / At School

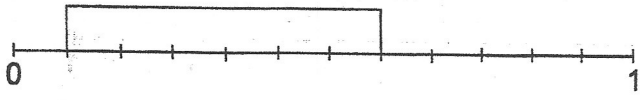
When you subtract 7 – 3, you could think:
What do I add to 3 to make 7?
You can use the same strategy to subtract fractions.

To subtract $\frac{7}{12} - \frac{1}{2}$, use fraction strips and a number line.

Think: What do I add to $\frac{1}{2}$ to get $\frac{7}{12}$?

The lowest common multiple of 12 and 2 is 12.
Use a number line that shows twelfths.

Place the $\frac{1}{2}$ strip on the number line with its right end at $\frac{7}{12}$.



The left end of the strip is at $\frac{1}{12}$.

So, $\frac{7}{12} - \frac{1}{2} = \frac{1}{12}$

Practice

1. Use Pattern Blocks. Subtract.

a) $\frac{1}{2} - \frac{1}{3} =$ _____

b) $\frac{5}{6} - \frac{4}{6} =$ _____

c) $\frac{2}{3} - \frac{1}{2} =$ _____

d) $\frac{2}{3} - \frac{2}{6} =$ _____

e) $\frac{1}{2} - \frac{1}{6} =$ _____

f) $\frac{1}{2} - \frac{3}{6} =$ _____

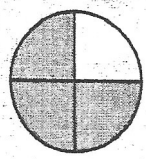
2. Use Pattern Blocks. Is each difference greater than $\frac{1}{2}$ or less than $\frac{1}{2}$? Show how you know.

a) $\frac{5}{6} - \frac{1}{6}$ _____

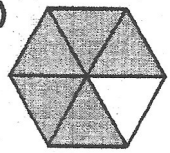
b) $1 - \frac{1}{3}$ _____

c) $\frac{5}{6} - \frac{1}{2}$ _____

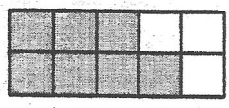
3. Use each diagram to subtract.

a) 

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

b) 

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

c) 

$\frac{7}{10} - \frac{3}{5} =$ _____

4. Use fraction circles to subtract.

a) $\frac{9}{10} - \frac{2}{5} =$ _____

b) $\frac{5}{8} - \frac{1}{4} =$ _____

c) $1 - \frac{2}{3} =$ _____

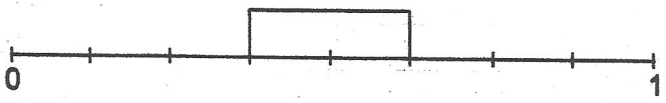
d) $2 - \frac{3}{4} =$ _____

e) $\frac{4}{5} - \frac{1}{2} =$ _____

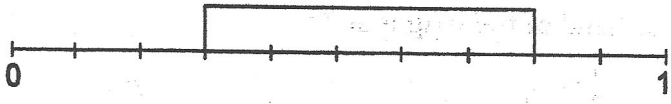
f) $\frac{1}{2} - \frac{1}{4} =$ _____

5. Write a subtraction equation for each picture.

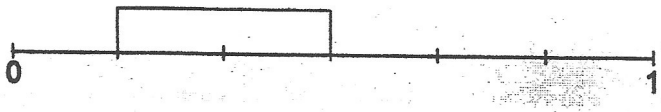
a) _____



b) _____



c) _____

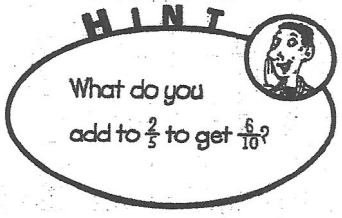


6. Subtract.

$\frac{6}{10} - \frac{2}{5}$

The lowest common multiple of 10 and 5 is: _____

Use a number line that shows _____.



Place the $\frac{2}{5}$ fraction strip on the number line with the right end at $\frac{6}{10}$.

The left end of the $\frac{2}{5}$ strip is at: ___

So, $\frac{6}{10} - \frac{2}{5} =$ _____

7. Subtract.

a) $\frac{5}{6} - \frac{1}{6}$

Use a number line that shows:

_____

The left end of the $\frac{1}{6}$ strip is at: _

So, $\frac{5}{6} - \frac{1}{6} =$ _____

b) $\frac{7}{8} - \frac{3}{4}$

Use a number line that shows:

_____

The left end of the $\frac{3}{4}$ strip is at: _

So, $\frac{7}{8} - \frac{3}{4} =$ _

8. Subtract.

a) $\frac{9}{10} - \frac{1}{2} =$ _____

b) $\frac{5}{6} - \frac{1}{2} =$ _____

c) $\frac{11}{6} - \frac{1}{3} =$ _____

d) $1 - \frac{5}{8} =$ _

9. Sergio has $\frac{7}{8}$ of a cup of trail mix. He gives Lien $\frac{3}{4}$ of a cup.
How much does Sergio have left? Use pictures, numbers, and words.

_____

_____

10. Kate drank $\frac{7}{10}$ of a glass of buttermilk.

Vicky drank $\frac{4}{5}$ of a glass.

a) Who drank more buttermilk? _____

b) How much more did she drink? Explain how you know.

_____

11. Write 5 subtraction statements with a difference of $\frac{1}{2}$.

_____ _____ _____ _____ _____