Eureka Math

4th Grade
Module 5
Lesson 17

At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this project!

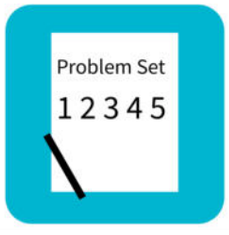
Directions for customizing presentations are available on the next slide.

Icons

Read, Draw, Write

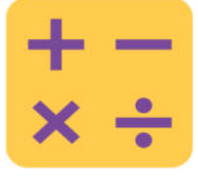
Learning Target

Personal White Board



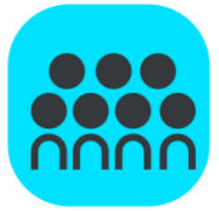
Problem Set

Manipulatives Needed



Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

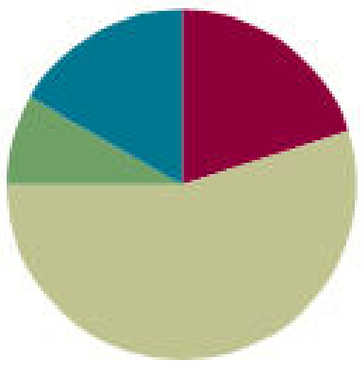
Small Group Time

Lesson 17

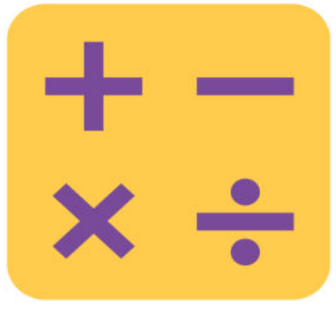
Objective: Use visual models to add and subtract two fractions with the same units, including subtracting from one whole.

Suggested Lesson Structure

Fluency Practice	(12 minutes)
Application Problem	(5 minutes)
Concept Development	(33 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Use visuals models to add and subtract two fractions, including subtracting from one whole.



Count by...

Starting at 0, count by ones to 6

Count by sixths from 0 sixths to 6 sixths

Now count by sixths, but when you get to 6 sixths say 1 WHOLE

Now count by sixths again, and when we get to 2/6 say ⅓

Take out the whole

How many halves are in 1?

How many thirds are in 1?

How many fifths are in 1?

How many fifths are 1 and $\frac{2}{5}$? Use a number bond to show this.

Draw tape diagrams

$\frac{2}{3} + \frac{2}{3} =$_____

Draw a tape diagram to show this work.

How many thirds are in 1?

Decompose 4/3 as a whole number and fractional parts.

RDW

Application Problem

Use a number bond to show the relationship between $\frac{2}{6}$, $\frac{3}{6}$, and $\frac{5}{6}$. Then, use the fractions to write two addition and two subtraction sentences.

Subtract from 1

Let’s find the value of 1 -⅜
Are the units the same?
What can we do have the same unit? Tell a partner.
Now that it is the same unit we easily subtract 8/8 -⅜
Use a number line to model your work.
Write it has a number sentence.

Subtract from 1

Try doing this one with your shoulder partner

1- ⅖

Can we solve this problem using addition?
Write a number sentence using “x”

Subtracting between 1 and 2

Let's solve 1 ⅕ - ⅖
First, we need to draw a number bond to decompose 1 ⅕ to show it ONLY as fifths.
I'm going to draw two tape diagrams to show 1 ⅕.
I see 6/5
I will now take away ⅖.
I got ⅘ as my answer.

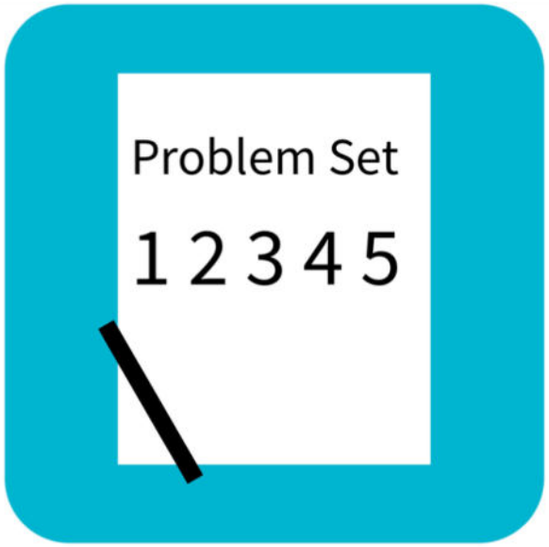
Now I am going to solve it on my other tape diagram.
I will take away ⅖ from 5/5 first and I now have ⅗.
I will need to add in the ⅕ back in.
LOOK!! I got ⅘ again.

Compare these two methods.

Subtracting between 1 and 2

Solve with your partner using both ways

$1\frac{3}{8} - \frac{5}{8}$



Problem Set

Name _____ Date _____

1. Use the following three fractions to write two subtraction and two addition number sentences.

a. $\frac{8}{5}, \frac{2}{5}, \frac{10}{5}$	b. $\frac{15}{8}, \frac{7}{8}, \frac{8}{8}$

Debrief

- For Problems 1(a) and (b), how did you determine the two addition and subtraction number sentences?
- Which strategy did you prefer for Problem 2(a–f)?
- What support does the number line offer you when solving problems such as these?
- Is the counting up strategy useful when solving subtraction problems? Explain.
- What extra step is there in solving when the fraction is written as a whole or mixed number instead of as a fraction?
- How is subtract from 1, or take from 1, similar to the take from 10 strategy?
- What role do fact families play in fractions? How are fraction fact families similar to whole number fact families?
- How did the Application Problem connect to today's lesson?

Exit Ticket

Name _____ Date _____

1. Solve. Model the problem with a number line, and solve by both counting up and subtracting.

$1 - \frac{2}{5}$