Eureka Math

4th Grade
Module 5
Lesson 34

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!

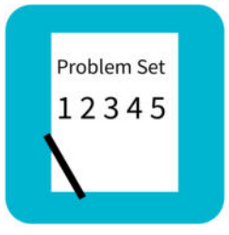
Directions for customizing presentations are available on the next slide.

Icons

Read, Draw, Write

Learning Target

Personal White Board

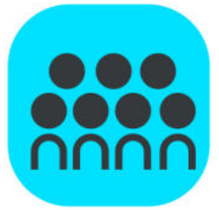


Problem Set

Manipulatives Needed

Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

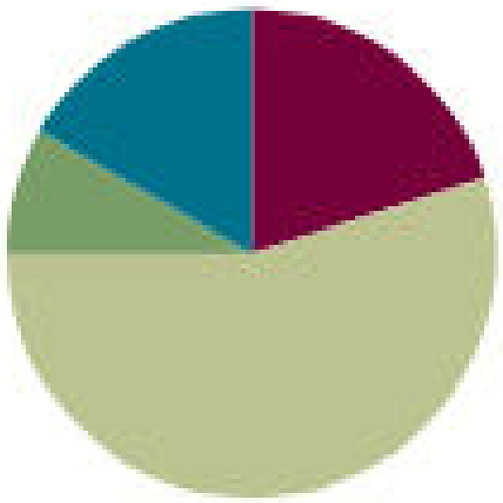
Small Group Time

Lesson 34

Objective: Subtract mixed numbers.

Suggested Lesson Structure

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



I can subtract mixed numbers.

Sprints!!!

Application Problem

There were $4\frac{1}{8}$ pizzas. Benny took $\frac{2}{8}$ of a pizza. How many pizzas are left?

Subtracting taking out 1

8 1/10 - 8/10

Do we have enough tenths to take away?
Let’s decompose 8 ones 1 tenth by out 10 tenths from 8 ones.

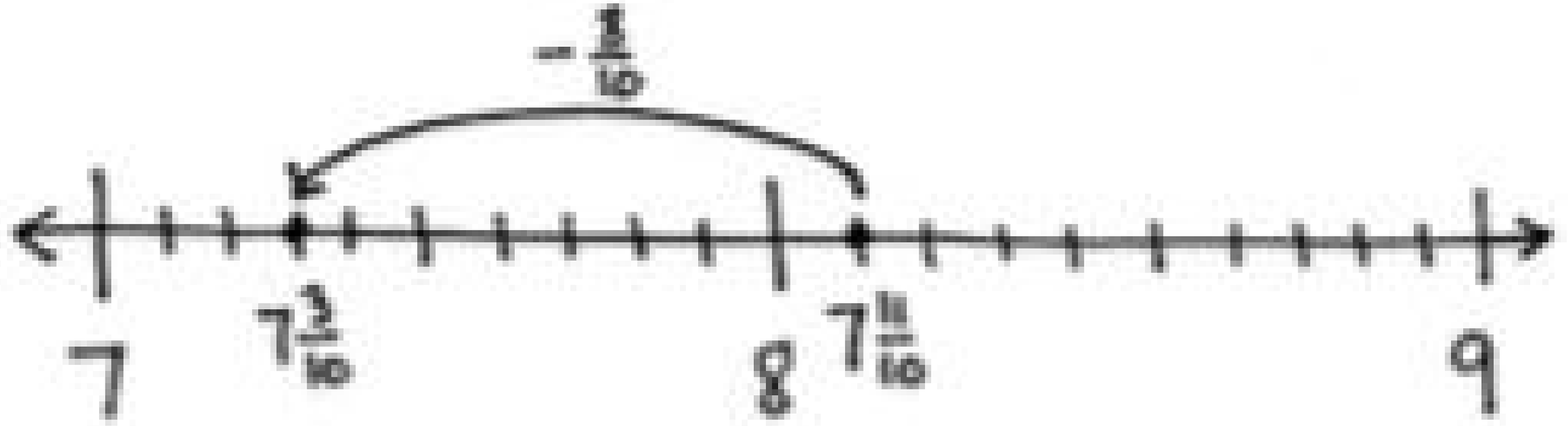
What do we now have?

7 11/10 -8/10. Now do we have enough tenths to take away?

We can easily subtract these now! What do you get?

Subtracting taking out 1

Let’s see how this person solved this problem on a number line.



Subtracting taking out 1

Let’s analyze this person’s work and see how they did it.

$$8\frac{1}{10} - \frac{8}{10} = 7\frac{11}{10} - \frac{8}{10} = 7\frac{3}{10}$$

$7 \quad \frac{11}{10}$

Subtracting taking out 1

11 ⅕-2 ⅗

First, subtract the whole numbers.

11-2=____

We now have 9 ⅕- ⅗

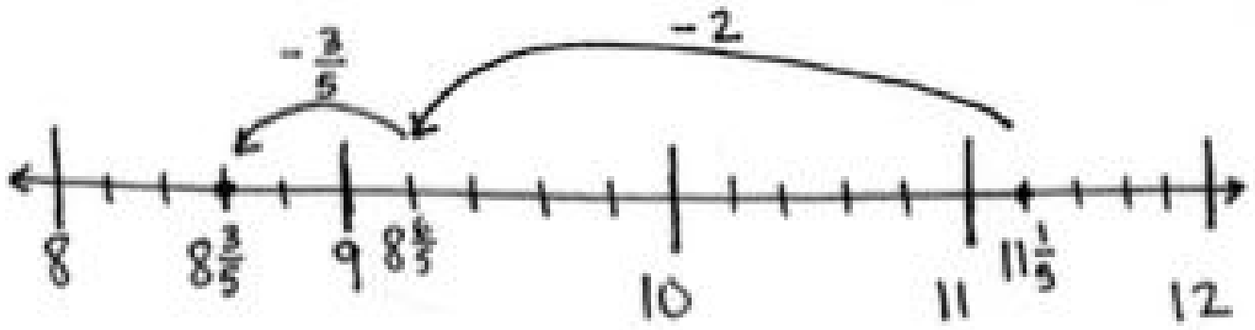
We can solve this by taking out 1 from 9 ⅕.
We now have 8 6/5 -⅗.
We can solve this easily!
What do you get?

Subtracting taking out 1

Let’s analyze someone’s work using two different strategies.

$11\frac{1}{5} - 2\frac{3}{5} = 9\frac{1}{5} - \frac{3}{5} = 8\frac{3}{5}$

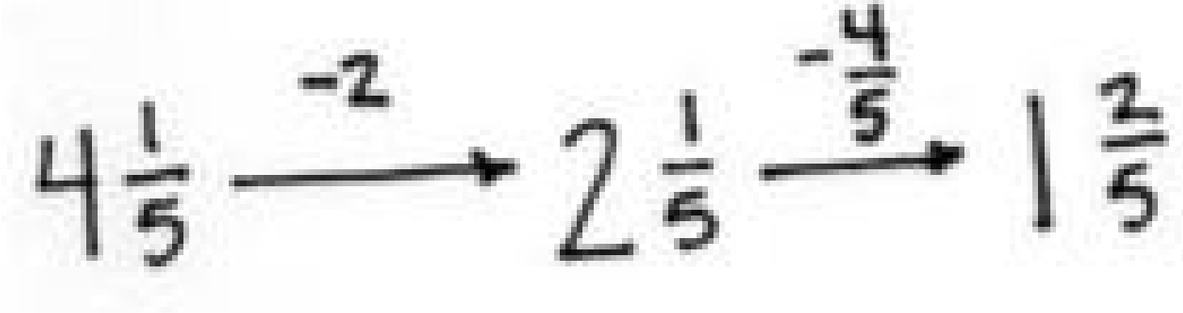
$8 \quad \frac{6}{5}$



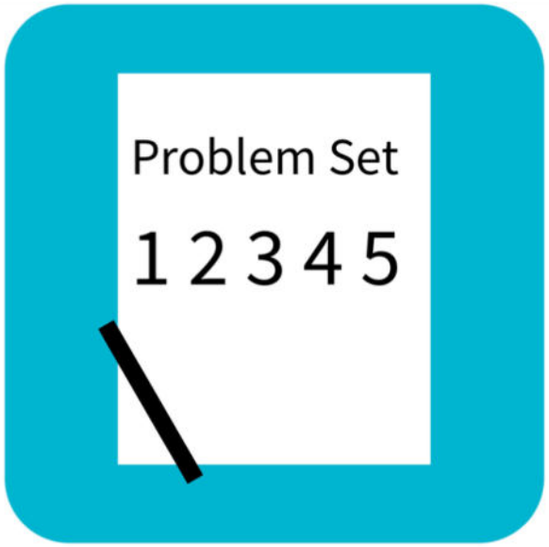
Subtracting, arrow way!

4 ⅕ - 2 ⅘

Let’s walk through this person’s thought process.



What was this person’s first step?
Second step?



Problem Set

Name _____ Date _____

1. Subtract.

   a. $4\frac{1}{3} - \frac{2}{3}$

   b. $5\frac{2}{4} - \frac{3}{4}$

Debrief

- With your partner, compare and contrast the methods you used for solving Problem 3. Did you find that your partner used a method more efficient than your method? How can you be sure your methods are efficient and effective?
- Solve Problem 2(b) again; this time, do not subtract the ones first. What is more challenging about this method? What could be advantageous about this method?
- How can estimation be used when checking your work for this Problem Set?
  - How is renaming to subtract 3 tens 8 ones from 6 tens 4 ones similar to how you solved for Problem 3(b)? Explain.
  - We know $11 - 8 = 13 - 10 = 3$. What was added to the total and the part being subtracted? Think about this solution to Problem 3(c). How did this person solve Problem 3(c)?

$$8\frac{3}{12} - 3\frac{8}{12} = 8\frac{7}{12} - 4 = 4\frac{7}{12}$$

Exit Ticket

Name _____ Date _____

Solve.

1. $7\frac{1}{6} - 2\frac{4}{6}$