

# Puzzle Talk - Grade 4

## Scale Fraction Addition and Subtraction (Level 1)

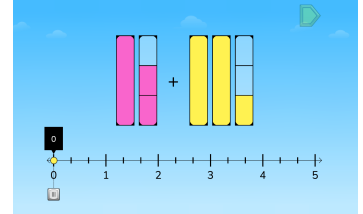


**ST Math**  
Created by MIND Education

*These facilitation suggestions are what a student-led discussion might look like when looking at puzzles in Level 1. Depending on how students respond, it likely would take one session for Level 1.*

### Description

- **Puzzle Location:** Grade 4 > Addition and Subtraction with Fractions > Scale Fraction Addition and Subtraction > Level 1
- **Topic:** Adding and subtracting fractions
- **Purpose of the Puzzle Talk:** Focus on student thinking and developing problem solving skills using guiding questions for each step in the Problem Solving Process
- **Preparation:** View the [Game in a Minute](#) video
- **Gather Materials:** Provide students with fraction manipulatives, whiteboards, and dry-erase markers



[click here for puzzle](#)

### Notice and Wonder

- Display the first puzzle from Level 1.
- Ask students: "What do you notice about this puzzle? What do you wonder about this puzzle?"
- Allow a few students to share out.

### Predict and Justify

- Ask students to think individually about how they could solve the puzzle, then turn and share with a partner before sharing as a class.
- Students should provide mathematical reasoning for the idea they want to try. They can use their fraction manipulatives and whiteboard to represent the puzzle.
- List these ideas for the class to consider.

### Test and Observe

- Select one of the student's strategies.
- Solve the puzzle and have students describe what happened.

### Analyze and Learn

- Ask students to think about how what they saw happen compares to their prediction.
  - If the answer was incorrect, discuss what was learned and what they think is best to try next. Have students share why that is the best way to solve the puzzle.
  - If the answer was correct, how can they take what was learned and apply it to the next puzzle?
- Show the next puzzle and have students discuss their strategies for solving it and why they chose those strategies.
- Select a student's strategy to try and observe the feedback.
- Replay the puzzle using the animation controls to pause the puzzle before Jiji crosses the screen, and ask questions such as:
  - "How does the model (bars) relate to the number line?"
  - "How could we line up the fraction bars on a number line?"
  - "What equation can you write to represent this puzzle?"
  - "How can we combine the mixed numbers to find the sum?"
- Repeat with additional puzzles in Level 1.