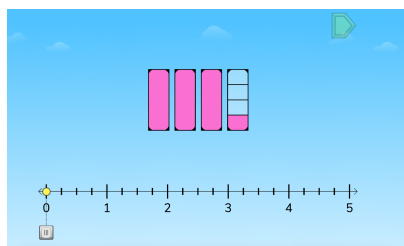


Materials

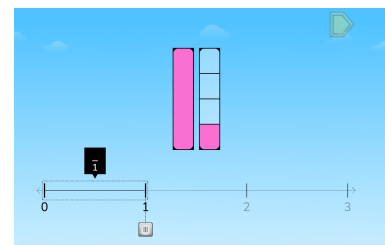
Blank paper
Connecting cubes and/or strips of paper for creating fractions



- Give students whiteboards and dry erase markers. Display the first puzzle in Level 2. Ask students, “What do you notice? How do you think we solve this puzzle?” Have students Think, Pair, Share their ideas.
- Try a student’s solution. Pause the puzzle before JiJi crosses the screen. Ask students, “How is the visual model we saw on the top of the screen related to the number line? How do we know the denominator for the unit fraction?” Have students turn and talk a neighbor and share their ideas.
- Ask students, “How could we represent this model as a fraction? A mixed number?” Have students write their answers on their whiteboards. Share students’ answers and discuss.
- Repeat with a few more puzzles in Level 2.

Directions

- Show a puzzle from Level 4.
- Discuss what students notice and how they will solve the puzzle.
- Discuss what happens when you move the cursor to create the partitions for the number line.
- Discuss the relationship of the denominator and the partitions.
- Repeat with the remaining puzzles in Level 4.


Sample Questions

- What fractions do you see in the visual model? Do you see fourths? How many?
- How would you represent this model on the number line?
- What is the relationship between the whole block and the fractional blocks?
- How would you plot $\frac{1}{3}$ on the number line? What might the model for this number look like?
- What is the relationship between the denominator of the fraction and the number of partitions between two whole numbers on the number line?

What to look for

How does the student:

- explain the fractions they see in the visual model? (Do they understand the $1 = \frac{3}{3}$, which is the same as $\frac{1}{3} + \frac{1}{3} + \frac{1}{3}$?)
- understand how fractions are represented on a number line? (e.g., Fractions between 0 and 1, 1 and 2).
- represent the model on the number line? (Can they convert the whole number to unit fractions?)
- explain the relationship between the visual model representation and the number line representation?