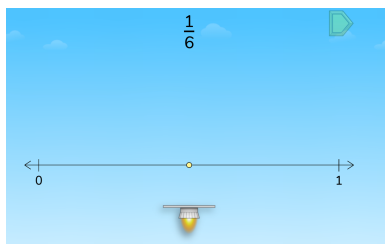


Materials

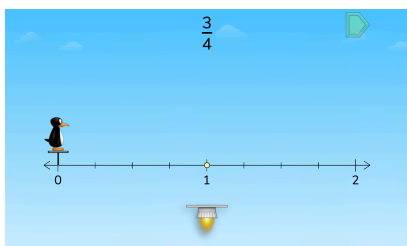
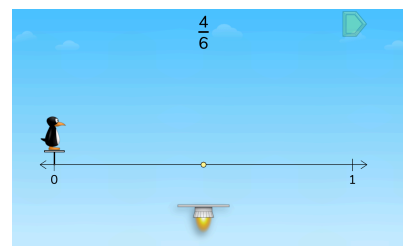
[Fraction Number Line Game Mats](#)
(3-5) and a dry erase marker



- Give students both Fraction Number Line Game Mats (3-5) and a dry erase marker. Display the first puzzle in Level 1. Ask students, “What do you see? What do you know about the fraction in the sky? How do you think you solve this puzzle?”
- Have students turn and talk to a neighbor about how to determine where to place the rocket.
- Share students’ thinking. Ask students, “How did you partition the number line? How did you know how many equal parts to partition the number line?”
- Solve the puzzle and watch the feedback. Pause the feedback to show the number line divided into equal parts. Say to students, “Our denominator is ____, so each whole on our number line is divided into ____ equal parts.”
- Repeat with a few more puzzles in Level 1. Remind students that these are *unit fractions*, fractions with a numerator of 1.

Directions

- Display the first puzzle in Level 2. Ask students, “How is this puzzle different? Where do you think we need to place the rocket to solve this puzzle? Why?”
- Have students solve the puzzle on their game mat and then compare their solution to their neighbor’s solution.
- Try a student’s solution and watch the feedback. Pause the feedback to show the number line divided into equal parts. Say to students, “Now our numerator is not 1. Remember our numerator is the counting number. Let’s count out the number of fraction pieces we need.” Count along the number line together and unpause the feedback.
- Repeat with the remaining puzzles in Level 2.



- Display the first puzzle in Level 3. Ask students, “How is this puzzle different? How has our number line changed? How has this number line been divided? How do you know?”
- Connect the denominator to the number of equal parts between each whole on the number line. Connect the numerator to how many of those equal parts are counted. Have students use the 0-5 Fraction Number Line Game Mat to record their solution to the puzzle.
- Repeat with the remaining puzzles in Level 3.

Sample Questions

- What do you know about this fraction?
- What does the denominator tell you? The numerator?
- How did you partition the number line? Why?
- Where do you think this fraction is located? Why?
- How do we know this is a unit fraction?
- How is this number line different from the other number line?



PUZZLE TALK

What to look for

How does the student:

- discuss strategies for partitioning a number line into fractions?
- define a unit fraction?
- estimate the location of a number on a number line by counting by unit fractions?
- discuss the role of the denominator in partitioning the number line?
- discuss the role of the numerator to locate a number on the number line?
- discuss the number of unit fractions that are equal to one?