

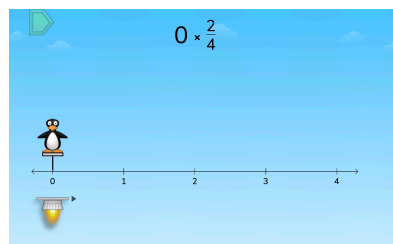
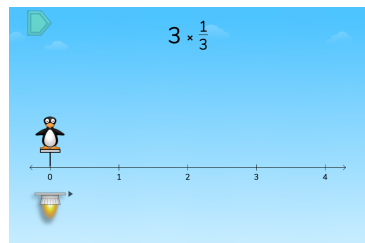


Materials

whiteboards, dry eraser markers
fraction tools such as fraction strips, Cuisenaire rods , number lines, etc.

Directions

- Give students whiteboards, dry eraser markers, and fraction tools, such as fraction strips, Cuisenaire rods , number lines, etc. Display the first puzzle in level 1. Ask students, “What do you see? Have students turn and talk to a neighbor about that they see in the puzzle.
- Say to students, “What does the problem mean at the top of the puzzle? How is it like other multiplication problems we have solved? How do you think we solve this puzzle?” Have students Think, Pair, Share their ideas.
- Try a student’s solution and watch the feedback. Say to students, “This problem said there were ___ groups of ___. JiJi counted out ___ of those pieces along the number line. Write the number JiJi landed on on your whiteboard.
- Ask students, “How did you determine where to put the rocket platform? How did you count along the number line? How many of the equal pieces did it take to make 1? How do you know?”
- Repeat with the remaining puzzles in Level 1.



- Display the first puzzle in Level 2.
- Ask students, “Can you think of a story problem that this equation could represent?” Have a student turn and talk to a neighbor. Share different problems the students come up with and prove that the problem can be represented with the equation.”
- Solve the remaining puzzles in Level 2.

Sample Questions

- How many total equal pieces do we have?
- How do we write the solution as a fraction? As a mixed number?
- How is multiplying fractions similar to multiplying whole numbers?
- How is multiplication related to repeated addition?
- How did you determine where the answer would be on the number line?
- How many equal pieces does it take to make 1?

What to look for

- How does the student:
- write the solution as a fraction and mixed number?
 - understand the relationship between addition and multiplication?
 - place a fraction on a number line?
 - Explain how many equal pieces are needed to make 1?