ST Math ${ }^{\circledR}$ Puzzle Talk

## JiJi Cycle

## Game Description

Help JiJi the penguin get the balloons. Move the basket to the point on the number line that represents the total of the fraction pieces on JiJi's cycle.

## Materials

- White board and markers
- JiJi Cycle game mat
- strip of paper for students to fold into fractions


## Suggested Puzzles



## Directions

- Go to stmath.com/games/jiji-cycle and project your screen.
- Select Level 2 to show a puzzle. Have students Think, Pair, Share (TPS) what they notice.
- Have students TPS how they think they can solve the puzzle.
- Have students explain how they determined where to place the basket on the number line.
- Try a solution offered by a student. Discuss the animated feedback from the game.
- Discuss the direction and distance each fraction rolls out on the number line.
- Go to Level 4 and discuss the similarities and differences to Level 2.
- What do you think the red fraction circles represent?
- Explain to a partner where you would place the basket. How did you determine this placement?
- Show another puzzle in Level 4 and have students write an equation to represent the fractions on the cycle and the total.
- Ask students to explain what each of the numbers in their equation represents.


## Sample Questions

- How did you determine the size of the fraction pieces?
- What number would be on the number line at the end of each roll?
- How is counting unit fractions like counting whole numbers?


## What to look for:

How does the student:

- Explain how they determined the size of the fraction piece? (It would take 4 pieces this size to make a whole circle.)
- Count the fraction pieces? Count the fractions greater than 1? (5 one-thirds $=5 / 3$ )
- Determine the label for the whole numbers? (3/3 is equivalent to 1 )


## Extensions

- Have students create and label a number line. Look for accuracy. How do the students determine each point on the number line? They may use manipulatives such as linking cubes or strips of paper to make sure the distances on the number line are accurate.
- Show a puzzle in Level 6 and have students show jumps on their number line to represent the fraction pieces shown on the number line. Have them label each jump.

