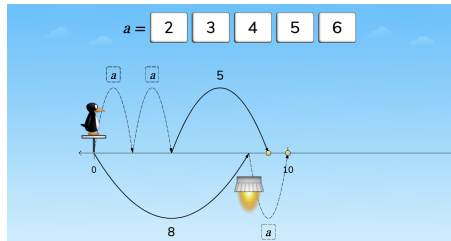
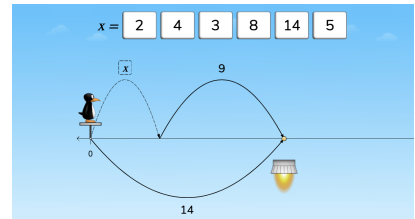


Materials

Paper and pencil

Directions

- Play any puzzle from Level 1 of Rolling Equation to introduce students to the game. Have an informal discussion about what they notice happening in the puzzle.



- Project any puzzle from Level 2. Have the students work to solve the puzzle using paper and pencil.
- Allow opportunities for students to use and share different strategies.

Sample Questions

- What is the question that we need to solve in this puzzle?
- What are the relationships that you see in the puzzle?
- How does what you select for the value of x affect the equation?
- What is the role of the number line for this puzzle? What is it showing you?
- What is the relationship between the two equations on the number line?
- How did you get to a solution for this puzzle?
- What equations can you write to represent the puzzle?

What to look for

How does the student:

- think about the variable in the problem? (Do they understand the relationship between the variables on top and the variables on bottom? Do they understand that $4a$ means each a is equal in value?)
- use the information they see in the puzzle to create their equations? (Do they understand the equation on the bottom is equal to the equation on the top?)

Extensions

- Give students number lines (or have them fold their papers in half) and have them create their own equations for additional puzzles. Students can trade their equations with a classmate to solve.