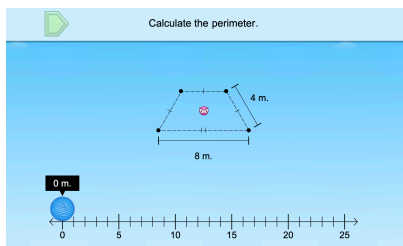
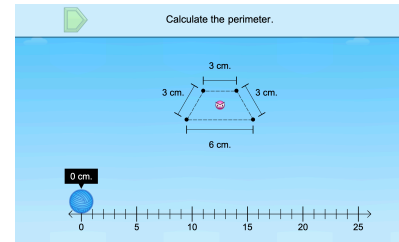


**Materials**

White board and markers for each student

**Directions**

- Display a puzzle from Level 1 (not the puzzle with JiJi's Helping Hand). Give each student a whiteboard and dry erase marker. Say to students, "What do you see? How do you think we solve this puzzle? Turn and talk to your neighbor. Discuss how to solve the puzzle and write down your answer."
- Share students' answers and thinking. Work together to define the word **perimeter**. Solve the puzzle and pause the puzzle when JiJi shows the equation. Represent the solution as  $s + s + s (\dots) = \text{perimeter}$ .
- Display the next puzzle in Level 1 with measurements in feet. Ask



- Display a puzzle in Level 2. Say to students, "What do you see in this puzzle? How is this puzzle different than the puzzles in Level 1? How can we use what we know about the attributes of this shape to help us find the perimeter when there are side lengths that are not labeled?" Have students share their thinking and solutions.
- Repeat with other puzzles in Level 2. Continue to convert measurements to a larger or smaller unit. Discuss other ways to calculate the perimeter and discuss an algorithm that would work for any similar shape (e.g. a rectangle's perimeter could be solve by  $2L + 2W$ ).

**Sample Questions**

- How many feet (or any unit that requires converting the measurements) would the perimeter be?
- How can we write this equation to work for any shape that is similar to this shape?
- How can we find the length of the sides that are not labeled?

**What to look for**

How does the student:

- make measurement conversions from larger unit to smaller unit and from smaller unit to larger unit?
- understand that the same formula can be used for any similar shape?
- find the measurement of sides of a shape that are the same length and understand how they know they are the same length?