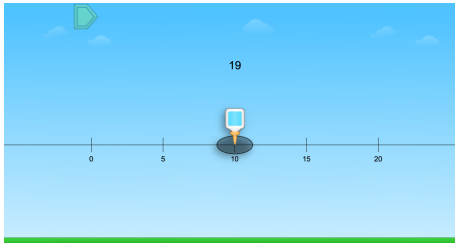


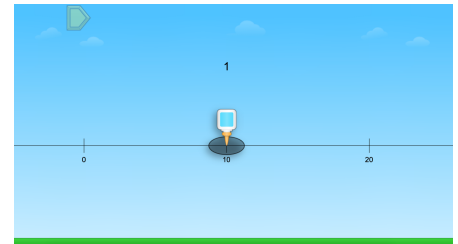
Materials

White boards and markers
 Connecting cubes
 Missing Tick Marks Number Lines

Directions


- Display the first puzzle in Level 2. Ask students, “What do you notice?” Share students’ observations, including what they know about the number line below as well as the number in the sky.
- Say to students, “Do you see the number in the sky on the number line below? How do we know where to place the number if it isn’t labeled?” Have students work with a partner to locate the number on the number line and discuss how they know where to place the number.
- Repeat with a few more puzzles in Level 2.

- Display the first puzzle in Level 4. Ask students, “How did the number line change from the one in the puzzles we just solved? Where would the number in the sky go on this number line?” Have students discuss where to place the number with a partner. Share students’ thinking as a class.
- Give students a Missing Tick Marks Number Line. Display the next puzzle in Level 4. Have students write the number in the sky on their number line. Repeat with the remaining puzzles in Level 4.


Sample Questions

- Why are there arrows on the end of the number line?
- What does each tick mark represent on this number line?
- If a number on a number line isn’t labeled, how do you know where it is located?
- What numbers would this number be between?
- What do you notice about the space between each number?

What to look for

How do students:

- determine where to place the number? (count each tick mark from 0; start at a higher number)
- understand the space between each tick mark? (they are all the same; each tick mark is one more)
- understand what happens to the value of numbers as they move from right to left and left to right on the number line? (increasing and decreasing in value)
- compare the number in the sky to the numbers labeled on the number line? (greater than, less than, one more, closer to, halfway between)

Missing Tick Marks- Number Lines

