Fifth Grade

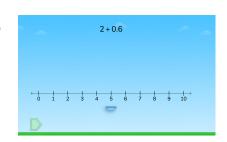
Addition and Subtraction With Decimals

Estimate Addition and Subtraction Number Line

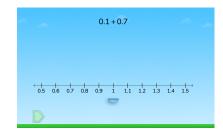
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White board and markers for each student

- Give students whiteboards and dry erase markers. Display the first puzzle from Level 1. Ask students, "What do you notice?" Have students Think, Pair, Share how they might solve the puzzle.
- Discuss students' strategies. Ask students, "How did you determine where to place the blue bar? How did what you know about the decimal help you to solve the problem?"



rection



- Display the first puzzle in Level 3. Ask students, "How does the number line in this level compares to the number lines in Levels 1?"
- Discuss the number line and what they know about the values of the expressions if the number line stays the same for all puzzles in this level.
- Discuss the increase from one tick mark to the next.
- Discuss the size of jumps on the number line for each place value.
 Have students solve the puzzle and share their solutions. Solve the puzzle and watch the animation together.
- Repeat with the remaining puzzles in Level 3. Have students write the problem vertically aligning the decimal points.

Sample Questions

- How did you determine where to place the blue bar?
- How much do the numbers increase from one tick mark to the next on this number line?
- Which number marked on the number line will this number be closer to? How do you know?
- How does the number you are adding/subtracting compare to 1?
- Can you use that understanding to help you place the blue bar?

What to look for

How does the student:

- estimate the value of the expressions and the decimals in the expressions?
- determine which two numbers the expression is between and how close it is to one of the numbers?
- use place value to add or subtract the numbers?