

Addition and Subtraction Situations with Unknowns

Push Box Symbolic

Whiteboards, dry erase markers math tools such as snap cubes or counters

- Give students math tools, a whiteboard and dry erase markers. Display the first puzzle in Level 1. Ask students, "What do you notice? How do you think we solve this puzzle?" Have students turn and talk to a neighbor and share their thinking.
- Try a student's solution and watch the feedback. Ask students, "What happened? Did we add or subtract boxes? How do you know?"
- Display the next puzzle and talk about what students see. Ask students, "What does the number by the bulldozer represent? Do we need to end up with more or less blocks than the number by the bulldozer? What does the minus sign tell us is happening?"



• Have students Think, Pair, Share with a neighbor. Solve the remaining puzzles in Level 1.



- Display the first puzzle in Level 2. Have students use math tools to solve the puzzle and record their solution as an equation. Share students solutions and equations. Ask students, "How do you know this puzzles represents a subtraction problem? What part of the puzzle does each number in your equation represent?"
- Repeat with the remaining puzzles in Level 2.

- Sample Questions What to look for
- What does the number by the bulldozer represent?
- Are we adding or subtracting blocks? How do you know?
- How could we represent this puzzle with an equation?
- What does the minus sign represent?
- How can you prove your answer is correct?

How does the student:

- discuss what the numbers in the puzzle represent?
- explain why the puzzle is addition or subtraction?
- represent the puzzle using math tools?
- explain what parts of the puzzle the numbers in their equation represent?
- prove their answer is correct?

Directions

First Grade

Materials