## **Third Grade**

Leg Drape Symbolic

White board and markers Give students whiteboards, markers and math tools. Display the first puzzle from Level 1 and ask students, "What do you see? Turn and talk to your neighbor about how you think we might solve the puzzle. Solve the puzzle and pause before JiJi's friends cross the screen in their shoes. Ask students to write two equations to represent JiJi's friends in their shoes (e.g., 4 + 4 + 4 = 12 and  $3 \times 4 = 12$ ). Highlight for students the repeated addition they see on the screen and how that is represented by multiplication (e.g., 3 groups of 4 shoes is written as  $3 \times 4$ ). Continue with the remaining puzzles in Level 1. • Display the first puzzle in Level 2. Ask students, "How is this puzzle different from the ones we just did? How do we solve this puzzle?" Have students work together using math tools as needed and write their answer on their whiteboards. Model the puzzle as an unknown factor problem for students (e.g., ? x 6 = 30 or How many ants does it take to fill 6 shoes). Focus on students' strategies for solving the puzzle. Ask students, "How could we use a division problem to solve this puzzle? (e.g.,  $30 \div 6 = ?$ )" Discuss the relationship between multiplication and division and how multiplication can be used to solve division and vice versa. Continue with the remaining puzzles in Level 2. Have students write down the related multiplication and division equations for each puzzle you solve. How can you represent this puzzle with an equation? What do the numbers in the equation represent in the puzzle? What do you know in the equation/puzzle and what are you finding? Are there any other creatures that could use this number of shoes? How are multiplication and division related? How does the student: understand what the numbers in the expression and equations represent? understand the difference between the number of groups and the size of the groups in a multiplication problem?





Directions

Sample Questions

What to look for