

**Fraction Division** 

**NOTE:** Students should participate in this puzzle talk **FIRST** before any other Elephants and Peanuts puzzle talks are completed.

- Give students a whiteboard, dry erase marker and math tools. Display the first puzzle in Level 1. Ask students, "What do you notice?"
- Discuss what they know about the elephant on the left. How many pieces does that one elephant eat? Discuss how many elephants they see on the right. Ask students, "How many peanuts will we need to feed \_\_\_\_\_ elephants if each elephant eats \_\_\_\_\_ peanuts?"
- Have students Think, Pair, Share with a partner and determine their solution.
- Try a student's solution and watch the feedback. Say to students, "How could we represent this puzzle with an equation? What is happening in this puzzle?" Work together to write a multiplication equation to represent the puzzle (e.g., If each elephant eats 2 peanuts and there are 3 elephants, then 3 groups of 2 peanuts each would eat 6 peanuts total or  $3 \times 2 = 6$ .)



• Ask students, "What does each number in this equation represent?" Repeat with a few other puzzles from Level 1.



Directions

- Display the first puzzle in Level 2. Ask students, "What do you notice? What is different about this puzzle? How many equal parts have the elephants been partitioned into?"
- Discuss what they know about the elephant on the left. How many peanuts does that one elephant eat? Discuss how many elephants they see on the right. Ask students, "How many peanuts will we need to feed \_\_\_\_\_ elephants if each elephant eats \_\_\_\_\_ peanuts?" (e.g., If each elephant eats 2 peanuts, how many peanuts will 1 ½ elephants eat? How do you know?)
- Have students Think, Pair, Share with a partner and determine their solution.
- Try a student's solution and watch the feedback. Say to students, "How could we represent this puzzle with an equation? What is happening in this puzzle?" Work together to write a multiplication equation to represent the puzzle (e.g., If each elephant eats 2 peanuts and there are 1  $\frac{1}{2}$  elephants, then 1  $\frac{1}{2}$  groups of 2 would eat 3 peanuts or 2 x 1  $\frac{1}{2}$  = 3 or 2 x  $\frac{3}{2}$  = 3).
- Ask students, "What does each number in this equation represent?" Repeat with a few other puzzles in Level 2.
- Display the first puzzle in Level 3 that does not show a unit fraction.
- Discuss what they know about the elephant on the left. How many pieces does that one elephant eat? Discuss how many elephants they see on the right. Ask students, "How many peanuts will we need to feed \_\_\_\_\_ elephants if each elephant eats \_\_\_\_\_ peanuts?" (e.g., If each elephant eats 6 peanuts, how many peanuts will 2/3 elephants eat? How do you know?)
- Have students Think, Pair, Share with a partner and determine their solution.
- Try a student's solution and watch the feedback. Say to students, "How could we represent this puzzle with an equation? What is happening in this puzzle?" Work together to write a multiplication equation to represent the puzzle (e.g., If each elephant eats 6 peanuts and there are 2/3 elephants, then 2/3 of 1 elephant would eat 4 peanuts or 2/3 groups of 6 = 4 or 2/3 x 6 = 4). Ask students, "What does each number in this equation represent?" Repeat with the remaining puzzles in Level 3.





- How many peanuts does 1 elephant eat?
- How many peanuts do we need to feed \_\_\_\_ elephants?
- Can you represent this fraction as a mixed number? This mixed number as a fraction?
- Can you represent this puzzle with an equation?
- What does each number in the equation represent?

How does the student:

- given the number of peanuts per elephants, determine how many peanuts are needed to feed the given number of whole or partial elephants?
- write equations to represent the puzzle?
- discuss what each number in the equation represents in the puzzle?
- represent a whole number times a fraction or a whole number times whole number?

What to look for Sample Questions