

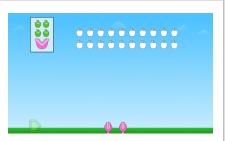
Converting Measurements

Fruit Monster

Materials Fruit Monster Game Mat

Fifth Grade

- whiteboard, dry erase markers
- math tools such as snap cubes, color tiles, etc.
 - Give students a Fruit Monster Game Mat, drv erase markers and math tools. 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 about their thinking.
 - Try a student's solution and watch the feedback. Ask students, "What happened in this puzzle? How did you know how many pieces of fruit to select? What do you know about the relationship between the Fruit Monster and the amount of fruit the Fruit Monster eats?"



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- Solve 1 -2 more puzzles in Level 1.
  Display the first puzzle in Level 2. Ask students, "How is this puzzle different from the puzzles we solved in Level 1?" Have students share what they notice.
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- Say to students, "What do you notice about the Fruit Monster in this puzzle? The Fruit Monster card tells us that 2 Fruit Monsters eat 1 whole pie. How much pie does 1 Fruit Monster eat? How do you know?" Have students Think, Pair, Share with a partner.
  - Say to students, "The Fruit Monster card tells us that for every 2 Fruit Monsters, 1 whole pie is eaten. If this puzzle has \_\_\_\_ Fruit Monsters, what is the total amount of pie that will be eaten? How do you know?" Ask students to record their solution on their game mat.
  - Try a student's solution and watch the feedback. Ask students to express the solution as a fraction and a mixed number.
  - Display the next puzzle. Say to students, "If the Fruit Monster card hasn't changed, how much pie will Fruit Monsters eat? How could we represent what is happening in this puzzle with an equation?" Share students' solutions and equations. Prove that the equation represents the puzzle. Repeat with 2 -3 more puzzles in Level 2.
  - Display the first puzzle in Level 3. Ask students, "How is this puzzle different from the puzzles we solved in Level 2?" Have students share what they notice.
  - Say to students, "What do you notice about the Fruit Monster in this puzzle? Now the Fruit Monster card tells us that 4 Fruit Monsters eat 1 whole pie. How much pie does 1 Fruit Monster eat? How do you know?" Have students Think, Pair, Share with a partner.
  - Say to students, "The Fruit Monster card tells us that for every 4 Fruit Monsters, 1 whole pie is eaten. If this puzzle has \_\_\_\_ Fruit Monsters, what is the total amount of pie that will be eaten? How do you know?" Ask students to record their solution on their game mat.
  - Try a student's solution and watch the feedback. Ask students to express the solution as a fraction and a mixed number. Display the next puzzle. Say to students, "If the Fruit Monster card hasn't changed,

how much pie will Fruit Monsters eat? How could we represent what is happening in this puzzle with an equation?" Share students' solutions and equations. Prove that the equation represents the puzzle. Repeat with the remaining puzzles in Level 3.

- How much fruit does 1 Fruit Monster eat?
- How many Fruit Monsters does it take to eat 1 whole pie?
- If it takes Fruit Monsters to eat 1 whole pie, how much pie does 1 Fruit Monster eat? How do you know?
- How many Fruit Monsters does it take to eat 1 whole pie? How do you know?
- Can you represent the solution as a fraction and a mixed number?
- How can we represent this puzzle with an equation?
- How much total pie will Fruit Monsters eat?

Directions





## How does the student:

- determine how many pies one monster would eat given a number of pies for 2 or more monsters?
- determine how many pies are needed to feed the given number of monsters?
- represent the puzzles on their game mats, partition the pies on the mat, and distribute the pies to the monsters?
- write equations to represent the puzzles?
- write the solution as both a fraction and a mixed number?