

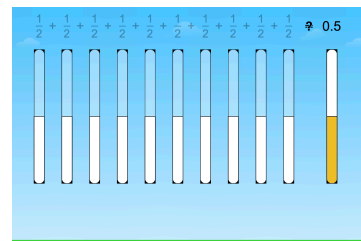


Materials

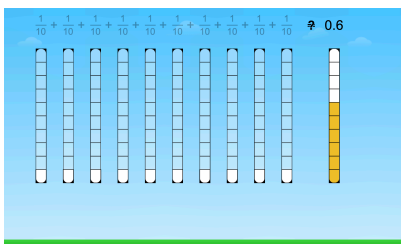
Fraction Area Game Mat (laminated or in a plastic page protector) whiteboards and dry erase markers for each student

Show and have students solve puzzles from Level 1.

- Have students discuss what they notice in the puzzle.
- Have students discuss the solution and solution strategies.
- Compare the different form for writing the numbers.
- Ask students, “How could we represent what we see in this puzzle with an equation?” Have students write equations for the problem. Share students’ solutions and discuss whether there are multiple ways to represent the puzzle (e.g., $\frac{1}{3} + \frac{1}{3} + \frac{1}{3} = 1$ or $\frac{3}{3} = 1$).



Directions

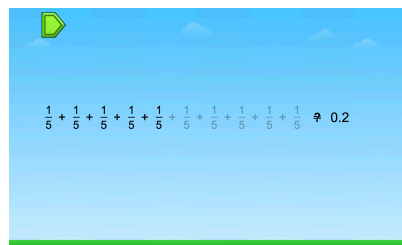


Show puzzles from Level 2.

- Discuss how these puzzles compare to puzzles in Level 1.
- Give students the Fraction Area game mat and a dry erase marker. Have students show their solutions on their mat.
- Make sure they understand that the grid on the mat is hundredths.
- Have students show and discuss the equation for the puzzle.
- Give students a chance to compare the numbers and the grid.

Show puzzles from Level 3 and 4.

- Have students show a couple of the puzzle solutions on their mat.
- Have students show and discuss the equation for the puzzle. Have students write the decimal equivalence for each fraction and show the equation with decimals. (Show addition and multiplication equations.)
- Give students a chance to compare the numbers and the grid.



Sample Questions

- What is the multiplication expression equivalent to the addition expression shown?
- What decimal is equivalent to this unit fraction?
- What would the sum be if all of these unit fractions were shaded? What would the multiplication expression be?

What to look for

How does the student:

- understand the relationship of unit fractions ($\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}, \frac{1}{10}$) to decimals?
- determine the number of unit fractions needed to equal the given decimal sum?
- record the sum on a hundred grid to compare tenths to hundredths?