Lesson: Addition of Decimal Numbers
Math Academy – Day 10
Student Notes

Goals:

Activities:

1. For each number listed below, draw the base-ten block representation. Be prepared to share your results with the class.
    a. 2.758
    b. 26.4

Amber Schreve and Thomas Geil

2. Whole Class Discussion: What does addition using the base-ten blocks involve?

3. Working with a partner,
    a. Using the same shape to represent the unit, draw the base-ten block representation of 2.81 and 1.7 below.

Unit Shape: _____

b. Using the base-ten blocks, add the two amounts together. Use the space provided below to draw your findings.

Before Trades	After Trades

c. Using the paper-and pencil method, add 2.81 + 1.7 and show all work. Compare the result to the drawing on the previous page. Be prepared to share your findings with the class.

d. Juan added 2.81 + 1.7 and found 2.98. How did Juan arrive at this answer? Where did he go wrong and why?

4. Add 1.245 + 9 using the paper-and-pencil method. Show all possible work and be prepared to discuss your findings with the class.

5. Add 12.91 + .0925 using the paper-and-pencil method. Show all possible work and be prepared to discuss your findings with the class.

6. Consider the following scenario:

Cristina is at the corner grocery store buying popsicles and ice cream sandwiches for friend's birthday party. The ice cream sandwiches cost $5.34 and the popsicles cost $3.97. Before tax, what is the total cost of the treats?

Lesson: Addition of Decimal Numbers
Instructor Notes

Goals:

- Explain that numerals to the right of the decimal point correlate with numbers less than one
- Recognize that in a multi-digit number, a digit in one place represents 1/10 of what it represents in the place to its left
- Demonstrate addition, subtraction, multiplication and division of decimals with base ten blocks
- Solve real world problems involving decimals and the four operations

Prerequisite Knowledge:

- Familiarity with place value and the base-ten system
- Understand the definition of addition of natural numbers
- Understand how to represent decimal numbers using the base-ten blocks

Lesson Materials:

- Student Notes for Day 10
- Base-ten blocks (do not need to be organized)

Lesson Breakdown:

Activity	Size of Group	Time in Activity Total Time: 55 minutes
Representing decimal numbers using base-ten blocks	Individually, then posting on board	15 minutes (8 minutes for drawings, 7 minutes for posting)
Recap on addition using base-ten blocks	Whole Class	5 minutes
Problem 3 parts a through c	Partners	10 minutes
Juan's error	Partners first, then a Whole Class Discussion	10 minutes
Paper-and-pencil problems 4 and 5	Individually or with partners, then as a whole class discussion	10 minutes
Cristina scenario	Individually or with partners	5 minutes

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    b. Using the base-ten blocks, add the two amounts together. Use the space provided below to draw your findings.

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c. Using the paper-and pencil method, add 2.81 + 1.7 and show all work. Compare the result to the drawing on the previous page. Be prepared to share your findings with the class.

d. Juan added 2.81 + 1.7 and found 2.98. How did Juan arrive at this answer? Where did he go wrong and why?

4.

Add 1.245 + 9 using the paper-and-pencil method. Show all possible work and be prepared to discuss your findings with the class.

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The ice cream sandwiches cost $5.34 and the popsicles cost $3.97. Before tax, what is the total cost of the treats?

MATHPH-700 Math Academy Name: _____
Day 10 Homework – Addition of Decimal numbers

1. What is the standard rule for adding decimal numbers together? How does this relate to using the base-ten blocks and adding decimal numbers?

2. Given: 0.57 + 2.143

a. Draw the addition of the problem using base-ten blocks.

b. Highlight the trade, if applicable.

c. Write the result.

e. Use the paper and pencil method to verify result.

d. Relate the result to the standard rule for adding decimal numbers together.

3. Given: .009 + 6 + 12.39

a. Add using the paper and pencil method.

b. Highlight the carry, if applicable.

c. Write the result.

MATHPH-700 Math Academy Name: _____
Day 10 Homework – Addition of Decimal numbers
Solutions

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e. Use the paper and pencil method to verify result.

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3. Given: .009 + 6 + 12.39

a. Add using the paper and pencil method.

b. Highlight the carry, if applicable.

c. Write the result.