Adding Decimals to the Hundredths Place

Challenge: You want to know how much money you have. You find $4.65 in your backpack and $2.75 in your pocket. How can you figure out your total? Your job is to solve this in at least two different ways using the tools you have.

You will:

1. Work with your partner to explore the problem.
2. Use the tools provided (coins, place-value chart).
3. Share your thinking.

Part 1 – Explore with Money

1. Model with coins – Draw or write the total as you combine them:

2. Model with a place-value chart – Write numbers, line up decimal points, and add.

Ones	Tenths	Hundredths	Total

Hint: Write $4.65 in the chart so that the 4 is in the ones column, 6 in the tenths, and 5 in the hundredths. Write $2.75 underneath it the same way, then add column by column, starting from the hundredths.

3. Draw a picture – Represent dollars, dimes, and pennies visually. These are the decimal places, so you have to represent the number in dollars, dimes, and pennies (no quarters or nickels here!)

4. Explain your thinking – Use the sentence starter: "I know my answer is correct because…."

5. Which method of learning did you like best: working with coins, using the place-value table, or drawing out your answer? Why?

Part 2 – Adding Money (Adding Decimals)

When you add money, you are really adding decimal numbers. The decimal point separates dollars from cents, and it must be lined up in both numbers before you add.

Follow these steps:

1. Write the numbers so the decimal points are lined up.
2. If a number does not have a digit in the leftmost place, fill it in with a 0 to make it easier for you to see. You can do the same if there is no digit in the rightmost place *after* the decimal. (Adding a 0 to a whole number will change the value; adding zeros before whole numbers and after decimal values will not change the value).
3. Add from right to left as usual, regrouping if needed.
4. Bring the decimal point straight down into your answer.

Examples:

Example 1: $1.34 + $3.42

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   1.34
+  3.42
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   4.76
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Line up the decimal points, add each column, no regrouping needed.

Example 2: $8.95 + $3.28

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   8.95
+  3.28
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  12.23
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Line up the decimal points, add the hundredths (5+8=13, regroup 1), then tenths, then ones.

Example 3: $1.56 + $0.25

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   1.56
+  0.25
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   1.81
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If one number has no dollars, write 0 in the ones place, if it helps you. Line up decimals, then add as usual.

Part 3 – Apply Your Learning

Choose 3 problems to solve (one from each category) using any method from Part 1. Review your work for accuracy using the checklist below.

Money Problems:

a. $3.40 + $5.85 = _____

b. $7.25 + $2.60 = _____

Measurement Problems:

a. 4.75 m + 3.25 m = _____

b. 2.50 L + 1.85 L = _____

Straight Computation:

a. 6.45 + 2.75 = _____

b. 9.80 + 3.15 = _____

Checklist for Adding Decimals:

- ☐ Did I line up the decimal points?
- ☐ Did I add from the hundredths place first?
- ☐ Did I regroup correctly?