



Sunnyside Grocery

Mission: You have \$20 and a shopping list for the family. Shop the aisles, estimate before you check out, add prices using place value, and make sure you get the right change.

Big question: How can place value help us add and estimate with money?

★ Warm-up: Estimation station

Round each price to the nearest dollar, then estimate the total.

\$2.49 + \$3.19 ✓ **About \$2 + \$3 = \$5.**

\$4.75 + \$1.29 ✓ **About \$5 + \$1 = \$6.**

Key vocabulary

Tenths	The first place after the decimal point (dimes).
Hundredths	The second place after the decimal point (pennies).
Regroup	Trade 10 of one place for 1 of the next place.
Estimate	A close answer found by rounding.
Budget	The most money you can spend.

1 Box 1

Estimate first

Estimate the total by rounding each price to the nearest dollar.

Answer: _____ dollars ✓ **9**

2 Box 2

Add by place value

In the simulator: Turn on the **place value mat**.

Use the mat: add each column and regroup. What is the exact total?

Answer: _____ \$ ✓ **9.91**

Show your thinking:

Check with the estimate

Your estimate was \$9 and the exact total is \$9.91. Is it reasonable?

☐ Yes: \$9.91 is close to \$9 ☐ No: it should be about \$99 ☐ No: it should be about \$0.99

✓ **Yes: \$9.91 is close to \$9**

3 Box 3

Change back

You pay with \$20. How much change do you get?

Answer: _____ \$ ✓ **10.09**

Show your thinking:

4 Box 4

Soup for the week

In the simulator: Add **3 cans of tomato soup** to your cart.

3 cans at \$1.29. Use partial products: $3 \times \$1 + 3 \times \$0.29$. What do the 3 cans cost?

Answer: _____ \$ **✓ 3.87**

Show your thinking:

5 Box 5

Stay on budget

With the list items AND 3 soups, can you also afford cheese (\$5.06) with \$20?

☐ No: the total is over \$20 ☐ Yes: the total is \$18.84, which is under \$20 ☐ No: the total is over \$25

✓ Yes: the total is \$18.84, which is under \$20

6 Box 6

Error detective

What did Kai do wrong?

☐ He didn't regroup: 10 hundredths should become 1 tenth, and 10 tenths should become 1 whole, so it is \$6.00
☐ Nothing, \$5.100 is right ☐ He should have subtracted

✓ He didn't regroup: 10 hundredths should become 1 tenth, and 10 tenths should become 1 whole, so it is \$6.00

7 Box 7

Legend: maximize Legend only

After your list items (\$9.91), choose extra items so your total is as close to \$20 as possible without going over. List them and your total.

Look for: Gives a money total; a number from the simulator; at least 8 words

8 Box 8

Explain your strategy

Explain how you added the prices using place value. Use the word "regroup".

Look for: Uses regroup; Names place values



Exit ticket: answer the big question in your own words

How can place value help us add and estimate with money?

Look for: To add decimals, add digits with the same place value (hundredths with hundredths, tenths with tenths) and regroup 10 of one place into 1 of the next. Estimating first (rounding

each price to the nearest dollar) tells you if your exact total is reasonable.

Completion codes

Students see a code like **ABC-I3** when they finish. The first part must match below. The letter is the level (E = Explorer, I = Investigator, L = Legend), and the number at the end is how many stars they earned.

Level	Code starts with
 Explorer	1T6-E
 Investigator	15A-I
 Legend	PCT-L

! Watch for these misconceptions

- "Longer decimals are bigger." 0.45 is less than 0.5.
- "Line up the digits on the right when adding." Line up the decimal points.
- "Multiplying always gives a bigger answer." Multiplying by a decimal less than 1 gives a smaller answer.