

Just in Time Quick Check

Standard of Learning 2.NS.4

Strand: Number and Number Sense

Standard of Learning 2.NS.4

The student will solve problems that involve counting and representing money amounts up to \$2.00.

Students will demonstrate the following Knowledge and Skills:

- a) Identify a quarter and its value and determine multiple ways to represent the value of a quarter using pennies, nickels, and/or dimes.
- b) Count by ones, fives, tens, and twenty-fives to determine the value of a collection of mixed coins and one-dollar bills whose total value is \$2.00 or less.
- c) Construct a set of coins and/or bills to total a given amount of money whose value is \$2.00 or less.
- d) Represent the value of a collection of coins and one-dollar bills (limited to \$2.00 or less) using the cent (¢) and dollar (\$) symbols and decimal point (.).

Just in Time Quick Check

Just in Time Quick Check Teacher Notes

Supporting and Prerequisite SOL: 1.NS.1f-g

Just in Time Quick Check 2.NS.4

1. Circle the quarter in the collection of coins.



2. Use symbols in the key to create two different groups of coins that have the same value as a quarter.

Key:

P = penny **D** = dime **N** = nickel

Group 1	Group 2

3. What is the value of this set of money? _____

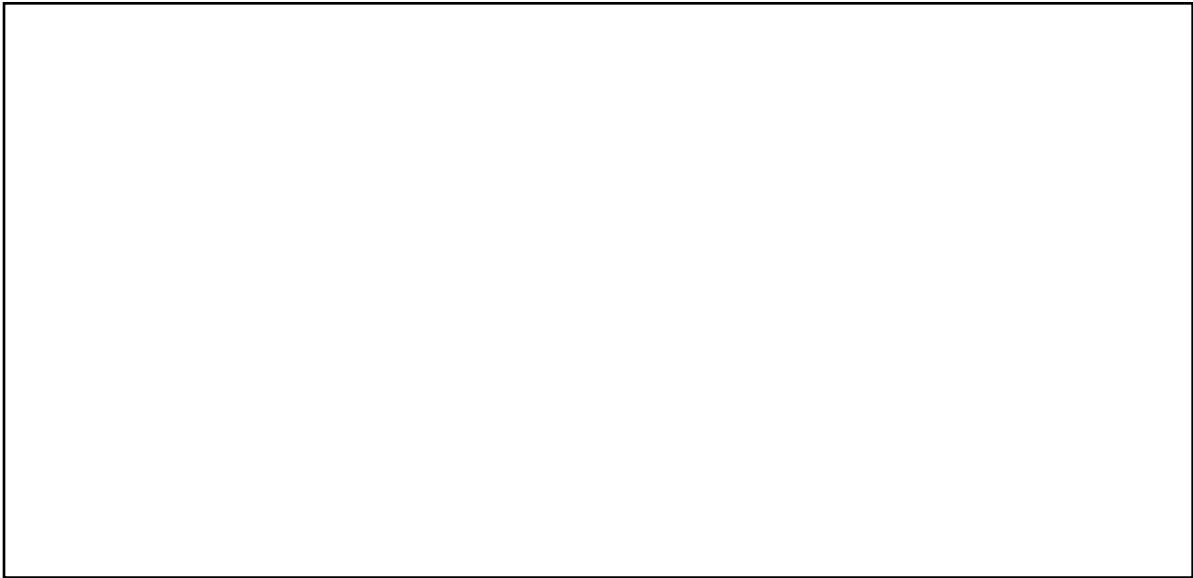


4. Kathy has \$1.70 in her pocket. She does not have any one-dollar bills. Use the symbols in the key to draw a picture showing what coins Kathy might have in her pocket.

Key:

Q = quarter **P** = penny **D** = dime **N** = nickel

Kathy's Money:



5. John has forty cents.
- a) Use the cents symbol to show "forty cents." _____
- b) Use a dollar sign and a decimal point to show "forty cents."

6. Manuel has one hundred sixty-two pennies.

a) Use the cents symbol to show this amount. _____

b) Use a dollar sign and a decimal point to show this amount.

7. Indya has one dollar and seven cents.

a) Use the cents symbol to show “one dollar and seven cents.”

b) Use a dollar sign and a decimal point to show “one dollar and seven cents.” _____

2.NS.4 Just in Time Quick Check Teacher Notes

Common Errors/Misconceptions and their Possible Indications

1. Circle the quarter in the collection of coins.



Students may confuse the nickel and quarter as they appear similar in size. These students need more opportunities to explore the various characteristics of each coin (i.e., the face of the coin or the edge of the coin) to determine the difference.

2. Use symbols in the key to create two different groups of coins that have the same value as a quarter.

Key:

P = penny **D** = dime **N** = nickel

Group 1	Group 2

Some students may recognize that a quarter has a value of twenty-five cents and create a group of twenty-five pennies, but struggle to create any other combinations of coins that have a value of twenty-five cents. These students may benefit from trading experiences where they trade five pennies for a nickel, and two nickels for a dime.

3. What is the value of this set of money?



Students who say the value is \$1.72 or \$1.57 may have counted the nickel that shows the reverse image (Monticello) as a quarter (\$1.72) or as a dime (\$1.57). These students need additional opportunities to explore coins and their characteristics. Some students may omit one or more coins, especially when given a set that has not been arranged in groups of like coins from greatest to least. These students would benefit from more experiences counting physical sets of coins that have not been arranged prior to counting. They may also benefit from hearing strategies their peers use for counting sets of coins. Some students may also benefit from using a hundred chart when determining the value of a set of bills and coins.

4. Kathy has \$1.70 in her pocket. She does not have any one-dollar bills. Use the symbols in the key to draw a picture showing what coins Kathy might have in her pocket.

Q = quarter **P** = penny **D** = dime **N** = nickel

Students may have difficulty using only coins to represent an amount of money greater than one dollar. These students need more experiences counting given collections of coins that are greater than one dollar as well as opportunities to represent a given amount of money in more than one way. Activities where students are collaborating with peers to compare different ways to represent a given value may be helpful. Some students may struggle to count by fives, tens, and/or twenty-fives and will need additional practice counting to help them count sets of coins. Providing a hundred chart to keep track while counting may be helpful to some students.

5. John has forty cents.

a) Use the cents symbol to show “forty cents.” _____

b) Use a dollar sign and a decimal point to show “forty cents.”

Some students may misplace the cents symbol ($\text{¢}40$) or may write $.40$ and omit the dollar sign or use the dollar and cent sign together ($\$0.40\text{¢}$). Other students may write $\$0.4$ or $\$4.0$, which may indicate confusion with place value and/or confusion with using the dollar and decimal notation appropriately. In each of these instances, students would benefit from more experiences representing a given amount of money using both types of notations and reading aloud amounts of money represented with both notations.

6. Manuel has one hundred sixty-two pennies.

a) Use the cents symbol to show this amount. _____

b) Use a dollar sign and a decimal point to show this amount.

Students may combine both types of notations and write 1.62¢ or $\$1.62\text{¢}$. Students may be able to write the amount correctly using the dollar sign and decimal point but be unable to write the amount as 162¢ . Students would benefit from more experience using both types of notations to represent given amounts of money presented orally or as words.

7. Indya has one dollar and seven cents.

a) Use the cents symbol to show “one dollar and seven cents.”

b) Use a dollar sign and a decimal point to show “one dollar and seven cents.” _____

Students may write $\$1.7$, $\$1.007$, $\$1.07\text{¢}$. Students may have difficulty correctly writing the given value based on what is read or heard, and students may mix both types of notations. Dollar amounts that require a zero in the tenths place may be especially challenging for students. Students would benefit from more experiences hearing, reading, representing, and writing a variety of money amounts that include a zero in one or more places when dollar/decimal notation is used (e.g., $\$2.07$, $\$1.40$, 105¢). Opportunities to work with peers and represent the same value of money in more than one way will be beneficial as students build understanding for the similarities and differences among the different representations.