

## Second Grade Nemeth Braille Code Curriculum

### Module 4: Money and Word Problems

It is time to get on the road again! Let's begin our journey by learning about money.

**Note:** *It is suggested that 5 pennies, 5 nickels, 5 dimes, and 5 quarters be used for this activity. In addition, use real money throughout the module, instead of play money. Plastic play coins do not feel, weigh, or smell like actual coins. Using real money will allow students to learn how to tactually identify coins. This is an important foundational skill.*

There are two forms of money – coins and bills. Begin by exploring the coins in the container.

What did you notice about the coins?

**Note:** *Student responses may vary. Helping hints may be offered as needed. If the student has residual vision, information about the color of the coins can also be shared. If the student has an electronic magnifier, it can be used to visually look at the coins, including the pictures and words on each coin.*

Yes, the coins are different sizes, and some of them have ridged edges while others have a smooth edge.

Have you used coins before? If so, when have you used coins?

**Note:** *Once again, student responses may vary.*

Sometimes I use coins to buy a drink or a snack from a vending machine. I have also used coins to buy bananas at a store. When I have a lot of coins, I have also purchased a drink or a small snack at a fast food restaurant.

Where else could we use coins?

Excellent! Explore this coin.

**Note:** *Give the student a quarter to explore.*

It is called a quarter, and it is worth 25 cents. Describe how the quarter feels.

**Note:** *If needed, model how to describe how the quarter feels.*

Yes, it has ridges around its edge and is larger than the other coins. Four quarters make a dollar. Now see if you can find another quarter in the pile of coins in the container.

Way to go! Try to find at least one more quarter!

**Note:** *Give the student a dime to explore.*

Now explore a dime. It is worth 10 cents. Tell me how the dime feels.

Yes, it also has ridges around its edge, and it is much smaller than the quarter. The dime is also lighter than the quarter.

Now find a dime in the pile of coins.

You did it! Ten dimes make a dollar. Now I would like for you to find another dime.

Excellent! The next coin that we will explore is called a nickel.

**Note:** *Give the student a nickel to explore.*

A nickel is worth 5 cents. How does it feel to you?

A nickel feels smooth on its edge because it does not have ridges, and it is smaller than a quarter, but bigger than a dime.

Good work! It takes twenty nickels to make a dollar! Now see if you can find two more nickels.

Fantastic! The last coin that we will explore is called a penny.

**Note:** *Give the student a penny to explore.*

It is worth 1 cent. Describe how the penny feels.

A penny feels smooth on its edge because it does not have ridges, and it is smaller than a quarter and a nickel, but bigger than a dime.

Now find three pennies in the pile of coins.

Good job of locating three pennies! It takes 100 pennies to make a dollar.

**Fun fact:** The first coins were made in Lydia (modern Turkey) more than 2,500 years ago.

Now put all the coins back into the container so that we can sort them, using four additional containers. I will help you if needed.

**Note:** *If preferred, a sorting tray with four different compartments may be used.*

Notice that I have labeled the containers. From left to right, the containers are labeled quarters, dimes, nickels, and pennies.

Now select a coin and see if you can figure out what kind of coin it is. Then place the coin in the container with the matching label. For example, if the coin is a penny, then place it in the penny container.

**Note:** *Helping hints or assistance can be offered as needed. If preferred, additional coins can be added before beginning to sort the money. This activity may also be repeated if the student needs additional practice.*

Good job, coin sorter! Now let's count how many coins we have in each bucket!

Yes, we have 5 quarters, 5 dimes, 5 nickels, and 5 pennies.

Why do you think it is important to learn about money?

**Note:** *Student responses may vary. Helping hints can be offered as needed.*

By learning about money, you will be able to buy items independently. It will also help you understand how to wisely use and save money.

As you get older, you will need to make important decisions about how you would like to use your money. For example, do you want to save money to buy a drink from the vending machine every Friday or perhaps to buy a present for a friend? It may take you longer to save for a present rather than buying a soda.

How much do you think it costs to buy a drink from a vending machine?

Yes, it usually costs one to two dollars to buy a drink from a vending machine. Do you think it costs more or less than a dollar to purchase a stuffed animal?

Yes, it will take more than one dollar to purchase a stuffed animal, even a small one.

Where can we store our money, especially our coins?

At home, I have a coin "jar". It is not really a jar. It is really a butter container that I cleaned. I keep it in a special place and at the end of the day, I place any coins that I have in it.

It helps me to store my coins in one place. So if I need 4 quarters, I know exactly where to look!

Where is another place I could keep my coins?

**Note:** *Student responses may vary. It may be helpful to bring a money jar, piggy bank, coin purse, or wallet for the student to explore.*

Yes, I can also keep money in a wallet, coin purse, or piggy bank.

**Fun fact:** Some people like to collect old coins.

For the second part of our journey, let's learn more about coins, specifically the Nemeth symbol for cent. Begin by reading the title at the top of the braille page.

Yes, it says Second Grade Nemeth Code Curriculum Module 4: Money and Word Problems.

Now, move your hands down to the sixth line of braille on the page. There is just one symbol on the line. What is this symbol called and what is its purpose?



You got it! It is called an opening Nemeth Code indicator, and it tells us that we are going to read math or science.

**Fun fact:** The first person known to collect coins was the emperor of Rome, Augustus Caesar, more than 2,000 years ago!

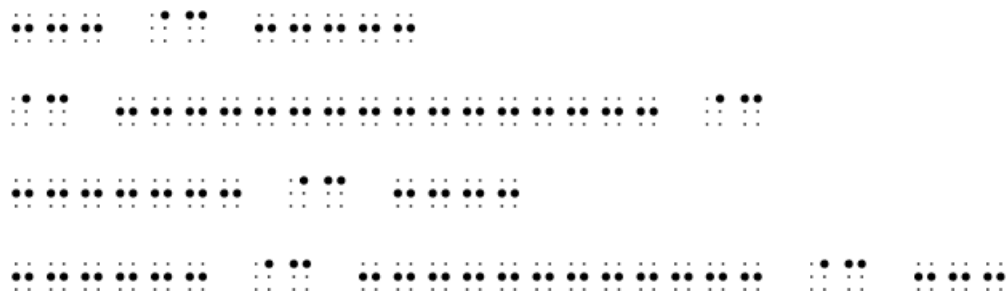
Softly glide your fingers across the next line of braille. In the middle of the line, you will find the Nemeth symbol for cent. It takes two cells to write the cent sign. It is written with dot 4 in the first cell, followed by dots 1-4 in the second cell. There is a line of dots 2-5 before and after the symbol.



You can also think of the symbol as dot 4, followed by the letter c. Why do you think the letter c is used as part of the Nemeth symbol for cent?

Yes, the word cent begins with the letter c. In addition, the print symbol for a cent includes a letter "c" with a line drawn through it.

Now it is your turn to find the cent symbol in each line of braille. Move your fingers lightly across the line of braille and say "cent" when you locate the symbol!





The figure consists of a 4x3 grid of 12 plots. Each plot is a 10x10 grid of dots. The dots are black in the first three rows and white in the fourth row. The plots show a sequence of transformations from left to right and top to bottom, illustrating the evolution of a point cloud over time.

**Fun fact:** The first coins in the United States were pennies. They were produced in the late 1700s and made from copper.

Honk! Honk! There is a lot of traffic on the highway today. While we are waiting to arrive, let's have fun writing about money on the brailewriter and/or Accessible Equation Editor!

Place your fingers on the correct keys on either the Accessible Equation Editor or your braillewriter. Then press dot 4, followed by dots 1-4 to write the symbol for cent. Practice writing this symbol several times.

**Note:** An answer key in braille is provided on page 1 of the document entitled "B3 Module 4 Answer Key for Writing Activities 2".

Now let's write an expression that includes a cent symbol.

75¢

Begin by writing a numeric indicator and seventy-five. We will finish writing the expression by writing a cent symbol immediately after the number.

What dots are used for a cent symbol?

You are correct. Dot 4, followed by dots 1-4 make the Nemeth symbol for cent. So press dot 4, followed by dots 1-4 and write a cent symbol.

Check your work as I read aloud what should have been brailled.

**Note:** An answer key in braille is provided on page 1 of the document entitled "B3 Module 4 Answer Key for Writing Activities\_2".

Numeric indicator, seven, five, cent symbol with dot 4, followed by dots 1-4.

Excellent! Let's write another expression that contains a cent symbol.

83¢

Begin by writing a numeric indicator and eighty-three. We will finish writing the expression by writing the Nemeth symbol for cent immediately after the number.

What dots are used to write the Nemeth symbol for cent?

You are correct. Dot 4, followed by dots 1-4 make the cent symbol. So press dot 4, followed by dots 1-4 and write a cent symbol.

You got it! Check your work as I read aloud what should have been brailled.

Numeric indicator, eight, three, cent symbol with dot 4, followed by dots 1-4.

Let's try one more together. The next expression is 5¢.

How should you begin?

Yes, you should begin by writing a numeric indicator and five.

What should I write next?

That is correct! We should place a cent symbol immediately after it.

What dots make the cent symbol?

Yes, dot 4, followed by dots 1-4 make the cent symbol. You are ready to braille the cent symbol!

Now check your work as I read aloud what should have been brailled.

Numeric indicator, five, cent symbol with dot 4, followed by dots 1-4.

Now try writing two expressions with a cent symbol by yourself. The first expression is 98¢, and the second expression is 61¢.

Check your work after you finish writing the expressions.

**Note:** *An answer key in braille is provided on page 1 of the document entitled "B3 Module 4\_Answer Key for Writing Activities\_2".*

Way to go, Nemeth superstar!

**Activity time:** You will need the Accessible Equation Editor and/or your braillewriter and braille paper for this activity. Listen and then braille what you hear.

**Note:** *Repeat saying each expression as many times as needed. Also remind the student to move his/her fingers across the braille and check his/her work if needed. An answer key in braille is provided on page 1 in the document entitled "B3 Module 2\_Answer Key for Writing Activities\_2".*

35¢

40¢

91¢

57¢

62¢

67¢

58¢

4¢

**Fun fact:** According to the United States mint, a penny remains in circulation for approximately 40 years.

For the third part of the journey, let's put together what we know about coins to complete a new activity. Before we begin the activity, it will be helpful to quickly review skip counting.

First, let's skip count by 10 to 100 together.

10 20 30 40 50 60 70 80 90 100

Now you skip count by 10 by yourself.

10 20 30 40 50 60 70 80 90 100

Excellent! Next, we will skip count by 5 to 100 together.

5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

Now you skip count by 5 by yourself.

5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

You did it! Next, we will skip count by 25.

25 50 75 100



Now you skip count by 25 by yourself.

25 50 75 100

Yay! We are ready to begin the counting money activity. You will need coins, a container, your braillewriter, and braille paper.

**Note:** Give the student three dimes. If desired, the Counting to 120 chart can be used.

Begin by feeling these coins and telling me if they are a quarter, dime, nickel, or penny.

Yes, all of the coins are dimes. How did you know?

**Note:** Student responses may vary. The student will likely emphasize the size of the coins or the ridges around the edge of the coins.

How many dimes are there?

You are correct. There are three dimes. What is the value of a dime? If you do not remember, that is okay.

Yes, a dime is worth 10 cents, so let's skip count by 10 to determine how much money we have.

10 20 30

We have 30¢. Now place the coins in the container and use your braillewriter or the Accessible Equation Editor to write 30¢.

**Note:** An answer key in braille is provided on page 2 of the document entitled "B3 Module 4\_Answer Key for Writing Activities\_2".

This time you will explore seven coins. Begin by feeling the coins and telling me if they are a quarter, dime, nickel, or penny.

**Note:** Give the student five dimes and two pennies.

That's right. You correctly identified the coins as dimes and pennies. Now determine how many pennies and dimes you have.

Yes, two of the coins are pennies, and five of the coins are dimes. What is the value of a dime?

That is correct! The value of a dime is ten cents. So if we have five dimes, how much money do we have? You can skip count if you would like.

10 20 30 40 50

We have fifty cents. What is the value of a penny?

You got it! A penny is worth one cent.

Time to count on! Since we have two pennies, we would add two cents to the fifty cents.

51 52

We have 52¢. Now place the coins in the container and use your braillewriter or the Accessible Equation Editor to write 52¢.

**Note:** *An answer key in braille is provided on page 2 of the document entitled "B3 Module 4\_Answer Key for Writing Activities\_2".*

Let's try another one together.

Begin by exploring the coins and telling me if they are a quarter, dime, nickel, or penny.

**Note:** *Give the student two quarters, one dime and one nickel.*

That's right. There are two quarters, one dime, and one nickel. What are the values of the coins?

That is correct! The quarter is worth twenty-five cents. In addition, the dime is worth ten cents, and the nickel is worth five cents. So how much money do we have?

When counting money, I usually begin with the coins with the largest value. So let's start with the quarters and skip count by 25.

25 50

We have fifty cents so far. Now we will add ten more cents for the dime. That would make sixty cents. If we add five more cents for the nickel, we have sixty-five cents.

Now place the coins in the container and use your braillewriter or the Accessible Equation Editor to write 65¢.

Way to go, coin collector! Time for you to try one by yourself.

**Note:** *Give the student one quarter, one nickel, and one penny.*

How much money do you have? Talk aloud about what you are doing, and I will help you if needed. Don't forget to write your answer using your braillewriter or the Accessible Equation Editor.

**Note:** *Provide assistance as needed.*

You did it! You have 31¢.

**Activity time:** You will need the Accessible Equation Editor and/or your braillewriter and braille paper for the next activity.

I will give you a set of coins. Each time, talk aloud as you determine how much money you have. Then use your braillewriter or the Accessible Equation Editor to write how many cents you have.

You may also use your Counting to 120 chart. Leave one space between your answers.

**Note:** *An answer key in braille is provided on page 2 of the document entitled "B3 Module 4\_Answer Key for Writing Activities\_2".*

1 quarter and 2 dimes

4 nickels and 3 pennies

1 dime, 2 nickels, and 1 penny

3 dimes, 3 nickels, and 4 pennies

2 quarters, 1 nickel, and 2 pennies

6 nickels and 3 pennies

3 quarters, 1 dime, and 1 penny

**Fun fact:** The United States Mint is the government agency that makes up to 28 billion coins each year to use in the United States. That is a lot of coins!

For the fourth part of the journey, let's learn about the dollar bill and how to read and write the dollar sign in Nemeth Code.

**Note:** *Give the student a dollar bill to explore.*

Explore a dollar bill and tell me what you notice about the bill.

**Note:** *Student responses may vary.*

Yes, the dollar bill is made of paper. It is a special paper made of cotton and linen that will not easily tear. A dollar bill is six inches long and 2½ inches wide. It weighs less than 1 ounce.

We sometimes purchase items with dollar bills. For example, if I wanted to purchase a small toy car, it might cost about one dollar. I could pay with a dollar bill instead of paying with coins.

It takes two cells to write the dollar sign. It is written with dot 4 in the first cell, followed by dots 2-3-4 in the second cell. There is a line of dots 2-5 before and after the dollar sign.

Now it is your turn to find the dollar sign in each line of braille. Move your fingers lightly across the line of braille and say “dollar” when you locate the dollar sign!

Notice that the dollar sign is placed unspaced before the number in braille. The dollar sign is also placed before the number in print. Locate the next line of braille, and I will read another example.

\$5

⠠⠠⠠⠠⠠

**Note:** *The expression would be read as five dollars.*

Move your fingers to the next line of braille and read the first expression.

\$2

⠠⠠⠠

\$13

⠠⠠⠠⠠⠠

That is correct! The expression would be read as two dollars. Now read the second expression on the line.

Yes, the expression would be read as thirteen dollars.

**Fun fact:** A different government agency is responsible for making paper money in the United States. It is called the Bureau of Engraving and Printing.

Beginning at the top of page 3, practice reading monetary expressions with a dollar sign. There will be 3 expressions on each line.

⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠

⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠

⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠

⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠

⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠

⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠

Good job! Now let's have fun learning to write expressions that include a dollar sign!

Place your fingers on the correct keys on either the Accessible Equation Editor or your braillewriter. Then press dot 4, followed by dots 2-3-4 to write the dollar sign. Practice writing the dollar sign several times.

**Note:** *An answer key in braille is provided on page 2 of the document entitled "B3 Module 4\_Answer Key for Writing Activities\_2".*

It is time to write an expression that has a dollar sign.

\$1

Begin by writing a dollar sign. What dots are used for a dollar sign?

You are correct. Dot 4, followed by dots 2-3-4 make the dollar sign. So press dot 4, followed by dots 2-3-4 and write a dollar sign.

Finish by writing one immediately after the dollar sign.

Check your work as I read aloud what should have been brailled.

**Note:** *An answer key in braille is provided on page 2 of the document entitled "B3 Module 4\_Answer Key for Writing Activities\_2".*

Dollar sign with dot 4, followed by dots 2-3-4, and then the digit 1

Excellent! Let's write another expression that contains a dollar sign.

\$8

How would you braille this?

You are correct. To braille \$8, begin with dot 4, followed by dots 2-3-4. Then braille the digit 8.

Now check your work. Did you braille it correctly?

Way to go, Nemeth superstar!

**Fun fact:** George Washington is featured on the front side of the dollar bill.

**Activity time:** You will need the Accessible Equation Editor and/or your braillewriter and braille paper for this next activity.

Listen as I read a series of expressions. Some of them will include a dollar sign, and some will not. Then write the expressions in braille. Space one time between the expressions.

**Note:** *An answer key in braille is provided on page 2 of the document entitled "B3 Module 4\_Answer Key for Writing Activities\_2".*

\$3 \$50 \$21

Now move your fingers across the braille and check your work as I say the expressions again.

\$3 \$50 \$21

Press your line spacing key twice to move to the next line.

\$10 38¢ \$9

Now move your fingers across the braille and check your work as I say the expressions again.

\$10 38¢ \$9

Press your line spacing key twice to move to the next line.

\$6 72¢ 45¢

Now move your fingers across the braille and check your work as I say the expressions again.

\$6 72¢ 45¢

**Fun fact:** Abraham Lincoln is featured on the front side of the \$5 bill.

For the fifth part of the journey, let's learn more about how to count money. We will need several dollar bills, coins, a sorting tray, and a small container.

Begin by exploring the money.

**Note:** *Give the student two dollar bills, three dimes and one nickel.*

Tell me if the coins are a quarter, dime, nickel, or penny.

That's right. You correctly identified the coins as dimes and a nickel. How many bills, dimes, and nickels do we have?

Yes, there are two dollar bills, three dimes, and one nickel. What are the values of the coins?

That is correct! The dimes are worth ten cents each, and the nickel is worth five cents.

Next let's use a sorting tray to organize the money by its worth, starting with the item with the largest value on the left and ending with the item with the smallest value on the right. I will help if needed.

So how much money do we have?

First, we have two dollars since we have two dollar bills.

We also have three dimes so let's skip count by 10.

10 20 30

We have two dollars and thirty cents so far. If we add five more cents for the nickel, we have a total of two dollars and thirty-five cents.

Now put the coins and bills in the container. Then we can try another one together.

Begin by exploring the money again.

**Note:** *This time give the student three dollar bills, one quarter, one dime and one penny.*

Tell me if the coins are a quarter, dime, nickel, or penny.

That's right. You correctly identified the coins as a quarter, a dime, and a penny. What are the values of the coins?

That is correct! The quarter is worth twenty-five cents, and the dime is worth ten cents. The penny is worth one cent.

How many dollars do we have?

Yes, there are three dollar bills.

Next let's use a sorting tray to organize the money by its worth, starting with the item with the largest value on the left and ending with the item with the smallest value on the right. I will help if needed.

So how much money do we have?

First, we have three dollars since we have three dollar bills.

We also have a quarter, so if we add twenty-five cents to three dollars, we have three dollars and twenty-five cents.

We also have a dime, so we should add ten more cents. Thus, we have three dollars and thirty-five cents.

If we add one more cent for the penny, we have a total of three dollars and thirty-six cents.

Place the money back into the container. Now it is your turn to try one by yourself. Do you have any questions?

**Note:** *Give the student one dollar bill, three nickels, and four pennies.*

How much money do you have? Talk aloud about what you are doing, and I will help you if needed.

**Note:** *Provide assistance as needed.*

Great work, money superstar! You have one dollar and nineteen cents.

Place the money back into the container.



**Note:** Give the student two dollar bills, two quarters, two dimes, three nickels, and two pennies.

How much money do you have? Once again, talk aloud about what you are doing, and I will help you if needed.

**Note:** *Provide assistance as needed.*

You did it! You have two dollars and eighty-seven cents.

Place the money back into the container.

**Fun fact:** Older worn dollar bills are replaced with new dollar bills by the Bureau of Engraving and Printing in the United States.

For the sixth part of the journey, let's learn how to read and write about money that includes a dollar sign and a decimal point.

A decimal point is used when reading and writing about money that includes both dollars and cents.

Locate the line of braille in the middle of page 3, and softly glide your fingers across it. In the middle of the line, you will find the Nemeth symbol for the decimal point. It is written with dots 4-6. There is a line of dots 2-5 before and after the decimal point.

Now it is your turn to find the decimal point in each line of braille. Move your fingers lightly across the line of braille and say “decimal point” when you locate the symbol!

	●				
		●	●	●	●
●					

\$2.50



Notice that the expression began with a dollar sign and the decimal point is read as “and”.

\$1.99



Move your fingers to the next line of braille and read the first expression.

\$3.25

\$11.46



That is correct! The expression would be read as three dollars and twenty-five cents. Now read the second expression on the line.

Yes, the second expression would be read as eleven dollars and forty-six cents.

**Fun fact:** Paper money is durable. It usually takes more than 4,000 folds before a bill tears.

Next, we will practice reading monetary expressions containing a dollar sign and a decimal point. Locate the top line of braille on page 4 and read just the expressions.





\$0.75

\$0.89

\$0.67

The figure consists of a 3x6 grid of small square plots. Each plot contains a different arrangement of black dots on a white background. The patterns are as follows:

- Plot 1 (top-left): 1 dot at (1,1)
- Plot 2 (top-middle-left): 2 dots at (1,1) and (1,2)
- Plot 3 (top-middle-right): 2 dots at (1,2) and (1,3)
- Plot 4 (top-right): 2 dots at (1,3) and (1,4)
- Plot 5 (middle-left): 2 dots at (1,1) and (2,1)
- Plot 6 (middle-middle-left): 3 dots at (1,1), (1,2), and (2,1)
- Plot 7 (middle-middle-right): 3 dots at (1,2), (1,3), and (2,2)
- Plot 8 (middle-right): 3 dots at (1,3), (1,4), and (2,3)
- Plot 9 (bottom-left): 3 dots at (1,1), (2,1), and (3,1)
- Plot 10 (bottom-middle-left): 4 dots at (1,1), (1,2), (2,1), and (2,2)
- Plot 11 (bottom-middle-right): 4 dots at (1,2), (1,3), (2,2), and (2,3)
- Plot 12 (bottom-right): 4 dots at (1,3), (1,4), (2,3), and (2,4)

\$1.25

Begin by writing a dollar sign. What dots are used for a dollar sign?

You are correct. Dot 4, followed by dots 2-3-4 make the dollar sign. So press dot 4, followed by dots 2-3-4 and write a dollar sign.

Then write one immediately after the dollar sign since we have one dollar. The decimal point comes next. What dots are used for a decimal point?

You got it! Dots 4-6 make the decimal point in Nemeth Code. So press dots 4-6 to write a decimal point. Next we will write twenty-five.

Check your work as I read aloud what should have been brailled.

**Note:** *An answer key in braille is provided on page 3 of the document entitled "B3 Module 4\_Answer Key for Writing Activities\_2".*

Dollar sign with dot 4, followed by dots 2-3-4, one, decimal point with dots 4-6, two, five

Excellent! Let's write another monetary expression with a dollar sign.

\$3.99

How would you braille this?

You are correct. To braille \$3.99, begin with dot 4, followed by dots 2-3-4. Then braille the digit 3. What would you braille next?

Yes, the decimal point would be brailled next. It would be followed by ninety-nine.

Now check your work. Did you braille it correctly?

Dollar sign with dot 4, followed by dots 2-3-4, three, decimal point with dots 4-6, nine, nine

Let's try two more together.

\$2.49

How would you braille this?

You are correct. To braille \$2.49, begin with dot 4, followed by dots 2-3-4. Then braille the digit 2. What would you braille next?

Yes, the decimal point would be brailled next. It would be followed by forty-nine.

Now check your work. Did you braille it correctly?

Dollar sign with dot 4, followed by dots 2-3-4, two, decimal point with dots 4-6, four, nine

You got it! Now braille \$5.00.

How would you braille this?

You are correct. To braille \$5.00, begin with dot 4, followed by dots 2-3-4. Then braille the digit 5. What would you braille next?

Yes, the decimal point would be brailled next. It would be followed by two zeros.

Now check your work. Did you braille it correctly?

Dollar sign with dot 4, followed by dots 2-3-4, five, decimal point with dots 4-6, zero, zero

**Fun fact:** Although it is not known why the color green was originally selected by the Bureau of Engraving and Printing, the color green continues to be used because green is thought to be symbolic of a strong government with stable credit.

**Activity time:** You will need the Accessible Equation Editor and/or your braillewriter and braille paper for the next activity.

I will give you a set of dollars and coins. Each time, talk aloud as you determine how much money you have. Then write your answer.

Don't forget to number your problems and use a separate line for each answer.

**Note:** *An answer key in braille is provided on page 3 of the document entitled "B3 Module 4\_Answer Key for Writing Activities\_2".*

1. 2 dollars and 1 quarter
2. 1 dollar, 7 nickels and 2 pennies
3. 1 dollar, 3 dimes, 2 nickels, and 3 pennies
4. 3 dollars, 1 dime, 3 nickels, and 4 pennies
5. 2 dollars, 2 quarters, and 2 pennies
6. 4 dollars, 5 nickels and 3 pennies
7. 3 dollars, 3 quarters, 1 dime, 1 nickel, and 1 penny

**Fun fact:** The \$10 bill will be redesigned in 2026, followed by the \$50 bill in approximately 2028.

We have almost reached our destination! While we continue traveling toward our destination, let's learn how to read and solve math word problems, including those about money.

Let's read five example word problems, beginning at the top of page 5 in your braille document. You will notice that Nemeth Code is opened immediately before the math expression  $48 + 13$ .

Please tell me if you need any help when reading the problem.

1. Show how you can use the Counting to 120 Chart to determine the sum of  $48 + 13$ .

Did you notice that Nemeth Code was closed immediately after the math expression  $48 + 13$ ? In addition, the period was placed after the Nemeth Code terminator.

What else, if anything, did you notice?

**Note:** Student responses may vary. You may want to point out that the problem begins in cell 1 with run-over lines beginning in cell 3. You may also want to share that the problem number is brailled using literary UEB numbers.

Now focus on answering the problem. Tell me step-by-step how you can solve the problem.

**Note:** Assist the student or provide helping hints as necessary.

Yes, forty-eight plus thirteen equals sixty-one.

Read the first sentence of the next multiple choice problem.

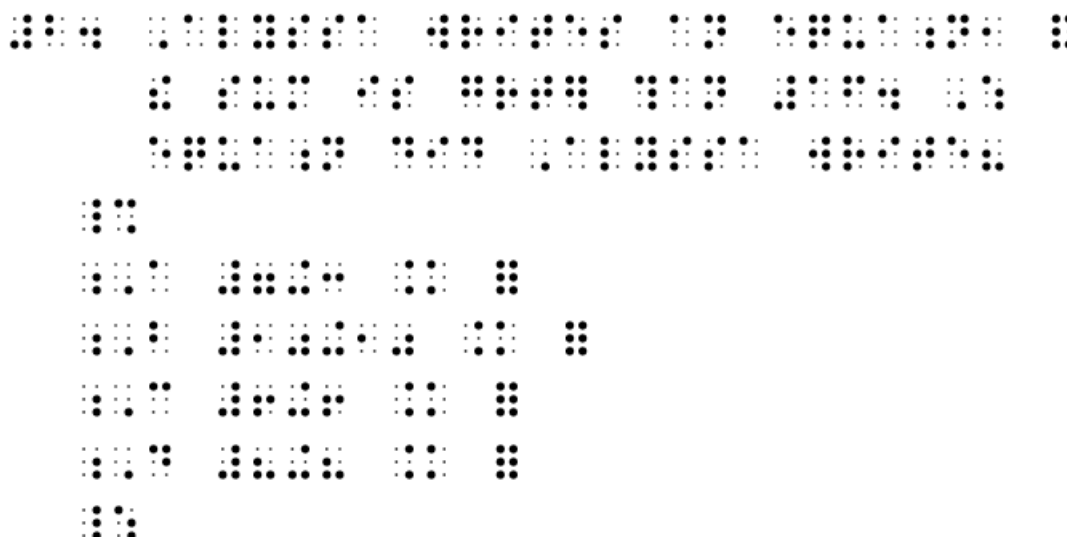
2. Alyssa writes an equation, and the sum is greater than 16. Which equation did Alyssa write?

A  $7 + 3 = ?$

B  $10 + 10 = ?$

C  $6 + 6 = ?$

D  $8 + 8 = ?$



The number 16 is written using an UEB number because 16 is a whole number. That means 16 does not have a decimal point, dollar sign, or cent sign. Thus, there is not a need to open Nemeth Code. Continue reading the rest of the problem.

Did you notice the opening Nemeth Code indicator above the first answer choice?

Where was the Nemeth Code terminator placed?

Yes, it was placed on the line below the last multiple answer choice. That means all of the answer choices are in Nemeth Code.

Now focus on answering the problem. Tell me step-by-step how you can solve the problem.

**Note:** Assist the student or provide helping hints as necessary.

Yes, B is the correct answer. Ten plus ten equals twenty, and twenty is greater than sixteen.



3. Jose has quarters, dimes, and nickels. Show three ways that he can make 50¢.

Excellent! Now show me the Nemeth Code terminator.

Now focus on answering the problem. You will need several quarters, dimes, and nickels. Tell me step-by-step how you can solve the problem.

**Note:** Assist the student or provide helping hints as necessary. There are multiple correct answers such as five dimes make 50¢ or ten nickels make 50¢.

4. Shaquilla has \$13.00 in cash. If she would like to buy a new backpack that costs \$20.00, how much does she need to save?

Excellent! Now show me the Nemeth Code terminators.

Now focus on answering the problem. Tell me step-by-step how you can solve the problem.

**Note:** Assist the student or provide helping hints as necessary.

That's correct. Shaquilla would need to save \$7.00 in order to buy a new backpack.

Let's read one more problem.

5. Mr. Lopez has 3 quarters, 2 dimes, and 1 penny. How much money does Mr. Lopez have?

- a. 75¢
- b. 86¢
- c. 96¢
- d. 97¢

Braille representation of the problem and answer choices:

5. Mr. Lopez has 3 quarters, 2 dimes, and 1 penny. How much money does Mr. Lopez have?

a. 75¢  
b. 86¢  
c. 96¢  
d. 97¢

Similar to the second problem, we did not need to open Nemeth Code for the whole numbers 1, 2, and 3. However, Nemeth Code was opened before the first answer choice since all of the answer choices included a cent sign. Once again, Nemeth Code was closed on the line below the last answer choice.

**Note:** Assist the student or provide helping hints as necessary.

Now focus on answering the problem. Tell me step-by-step how you can solve the problem.

**Note:** Assist the student or provide helping hints as necessary.

Yes, C is the correct answer. Three quarters, two dimes, and one penny equals 96¢.

Yay! We did it! We have reached our destination. Let's finish our adventure with a follow-up activity.

### **Follow-up activity:**

We are going to play a game called Connect Four. We will need Connect Four game cards, flash cards with monetary expressions, a two-compartment sorting tray, and markers. Small stickers or pieces of Wikki sticks can be used for markers.

**Note:** *There are additional directions for the activity in the Teacher Reference document. You will need 2 or more players for this game. If you use Wikki stick pieces, roll them into a ball with your hand so that they will stick to the paper more easily. Another option is using pushpins on a cork board or magnets on a cookie sheet.*

Before we begin the activity, each player needs to select a game card.

**Note:** *If you do not have a two-compartment sorting tray, use two small storage boxes. If needed, explain how you win Connect Four by having four in a row down, across, or diagonally. There are four possible ways to win diagonally instead of just the traditional two ways since the game board is not a square.*

Use your hands to explore the game card. There are four columns below the title, and each column is made up of five squares.

Then as each monetary expression is read, quickly scan your game card and place a marker on the monetary expression that was called. We will play until a winner calls out Connect Four.

Now shuffle the monetary expression cards. You will take turns drawing one card and reading the expression on it. As you read each card, use a two-compartment sorting tray to separate which cards you have read and which cards you have not read.

**Note:** *This activity can easily be completed with several students who read print or braille. If some of the players read print, add print to each of the flash cards and game cards.*

Congratulations! You are a Nemeth champion!