

Kindergarten Nemeth Braille Code Curriculum  
Module 5: Introduction to Addition and the Braille Hundreds Chart

On your mark, get set, go! It's time for another adventure on a scooter! For the first part of our adventure, let's learn how to add groups together.

**Note:** *Place 5 counting bears into a bowl or work tray. If preferred, you can use different objects, Unifix blocks, or base ten unit blocks.*

Reach into the bowl and tell me about what you find.

Yes, there are five counting bears. We will use them to act out a pretend story about bears. What does pretend mean? You got it! Pretend means make-believe or imaginary.

Two bears sat on the grass in the zoo. So let's get out 2 bears and pretend that they are sitting on the grass. Three more bears walked out of a cave and sat down on the grass. Get out 3 more bears and pretend that they are sitting on the grass too.

How many bears are sitting on the grass now? Let's count the bears together.

1 2 3 4 5

There are 5 bears sitting on the grass now. We have "added" the groups together.

**Note:** *Show the Five Frame (available within the curriculum) to the student. It may help to place the Five Frame on a nonslip surface such as a rubber shelf liner. You may also place the Five Frame on a cookie sheet or magnetic board and use magnetic counters instead of pennies. The Tactile Tokens from APH fit perfectly into the Five Frame and the two textures can represent the two addends. You can also use the shapes and line segments from the Picture Maker Wheatley Tactile Diagramming Kit to create the Five Frame. It may be helpful to use a work tray to hold your counters/pennies.*

Sometimes when we add groups together, we use a Five Frame. Use your hands to explore the Five Frame. Let's find the title and read it together. Where will we find the title?

That's right, scooter racer! The title is at the top of the page. The title is Five Frame. Now use your hands to find the squares in a row. A row goes from

the left to the right. Move your hands across the row of squares from left to right. Now count the squares. That is correct. There are five squares.

**Note:** *If preferred, you may begin with five small storage boxes and then transition to the Five Frame.*

Let's go back to the bear story. There were 2 bears sitting on the grass. We can use pennies (or small pieces of Wikki sticks) on the Five Frame to show the bears. Let's work together to place 2 bears on the Five Frame. We will only place 1 bear in each square, beginning with one on the far left and then moving to the right.

Then some more bears came. How many more bears came and sat on the grass? That's right. 3 more bears came to sit on the grass. Let's place 3 more bears on the Five Frame.

How can we use the Five Frame to find out how many bears are sitting on the grass now?

**Note:** *There are several possible correct responses. Offer assistance if the student has difficulty using the Five Frame to determine how many bears are now sitting on the grass.*

Excellent counting! There are 5 bears sitting on the grass!

Let's try another one. Before we begin, remove the pennies (or small pieces of Wikki sticks) from the Five Frame and place them back in the work tray.

There is 1 dog taking a walk in the park. How many pennies should we place on the Five Frame? That's right. We will place 1 penny on the Five Frame. Two more dogs have come to the park and are now walking in the park. How many more pennies should we place on the Five Frame? That is correct. We need to place 2 more pennies on the Five Frame.

How many dogs are walking in the park now? That's right! 3 dogs are walking in the park.

Before we begin another one, remove the pennies from the Five Frame and place them back in the work tray.

There are 4 turtles swimming in the pond. How many pennies should you place on the Five Frame? That's right. You will place 4 pennies on the Five Frame. Another turtle begins swimming in the pond too. How many more pennies should we place on the Five Frame? That is correct. We need to place 1 more penny on the Five Frame.

How many turtles are swimming in the pond now? You got it! 5 turtles are swimming in the pond.

**Fun fact:** Freestyle scooting is an extreme sport which involves using kick scooters to perform tricks.

**Activity time:** Now it is time for you to make up your own addition story, and then we will work together to braille it. Then we will illustrate your story using a variety of small objects, tactile stickers, and paper with different textures.

**Note:** *There are additional instructions about how to make up the addition story in the Teacher Reference Materials.*

Let's use our Five Frame to learn about different ways to make 5.

**Note:** *Breaking numbers down into the addition of two numbers or pairs of addends is called decomposition in math. Learning how to decompose numbers allows students to think about numbers in flexible ways and helps students develop the understanding that smaller sets of objects exist within a larger set. This provides a foundation for learning basic math facts as well as regrouping (composing) in subtraction in later grades.*

*It may be helpful to place the Five Frame on a nonslip surface such as a rubber shelf liner for this activity. You may also place the Five Frame on a cookie sheet or magnetic board and use magnetic counters instead of pennies.*

Begin by placing 4 pennies on the Five Frame. How many more pennies are needed to make 5? That's right! We need 1 more penny to make 5. How did you know that we need 1 more penny to make 5?

**Note:** *There are several possible correct responses. The student may indicate that he/she counted the empty squares on the Five Frame or counted in his/her head. The student may also place 1 additional penny on the Five Frame so that every square is filled.*

Remove the pennies from the Five Frame and place them back in the work tray. Now place 3 pennies on the Five Frame. How many more pennies are needed to make 5? That's right! We need 2 more pennies to make 5.

**Activity time:** Let's play a game called "Zoom to 5" with our Five Frame and pennies! We will also need a sorting tray and 2 flash cards for each number from 0-5.

**Note:** Similar to the previous activities, you may also place the Five Frame on a cookie sheet or magnetic board and use magnetic counters instead of pennies.

Shuffle your flash cards and then draw a flash card. Read the number on the flashcard and then use your Five Frame and pennies to tell me how many more are needed to make 5. As you read each number card, use a sorting tray to separate which cards you have read and which cards you have not read.

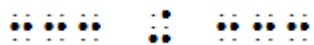
**Note:** If the student selects the number 5, then no additional pennies would be needed to make 5.

You will win the game if you can tell me how many more are needed to make 5 for all of the numbers before the timer goes off.

**Note:** The length of time should be based on the individual needs of the student. If desired, this game can be played more than once. The length of time can be decreased each time in order to promote fluency.

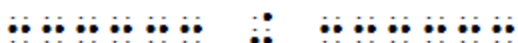
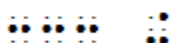
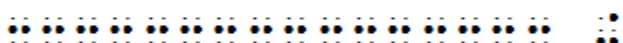
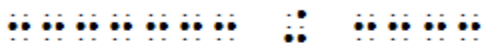
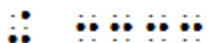
For the second part of the adventure, let's learn about the plus sign. We use this symbol when we are adding numbers in math.

Softly glide your fingers across the line of braille. In the middle of the line, you will find a plus sign. There is a line of dots 2-5 before and after the plus sign.



Great work, cyclist! Did you notice that the plus sign is made with the dots 3-4-6?

Now it is your turn to find the plus sign in each line of braille. Move your fingers lightly across the line of braille and make your favorite scooter sound when you find the plus sign!



Answer: 

The student will make his/her favorite scooter sound each time he/she points to a plus sign at the following places:

Line 1: at the beginning of the line

Line 2: toward the middle of the line

Line 3: at the end of the line

Line 4: at the end of the line

Line 5: toward the middle of the line

Let's find more plus signs. Say "scoot faster" when you find the plus sign in each line. Be careful to make sure it is a plus sign and not a number or a general omission symbol.

**Note:** *If you would prefer, the student can stomp a foot whenever he/she finds a plus sign. This option will also allow the student to keep his/her fingers on the braille. If you are using hard copy braille, the student can underline or circle the plus sign instead of saying "scoot faster" or stomping a foot. If you would prefer, the student can also place a small sticker on top of each plus sign.*

Answer: 

The student will say "scoot faster" each time he/she points to a plus sign at the following places:

Line 1: toward the end of the line

Line 2: at the end of the line

Line 3: toward the middle of the line

Line 4: at the beginning of the line

Line 5: toward the end of the line

Let's learn how to write a plus sign in braille. A plus sign is made with the dots 3-4-6. Place your fingers on the correct keys on either the Accessible Equation Editor or your braillewriter. Then use your ring finger on your left hand as well as your index and ring fingers on your right hand to write the plus sign. Practice writing the plus sign several times.

Answer: ⠠⠠⠠⠠⠠ (The directions are to write the plus sign several times, so there may be variation in how many times the plus sign is written. Any length of line is considered correct.)

**Fun fact:** There are different types of electric scooters, including electric mobility scooters that can assist people with disabilities in moving around easily and safely.

**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. Space one time between the braille symbols.

**Note:** *An answer key in braille is provided on page 1 of the document entitled "B3 Module 5\_Answer Key for Writing Activities\_K".*

5 0 general omission symbol plus sign

Answer: ⠠⠠⠠⠠⠠

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

5 0 general omission symbol plus sign

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

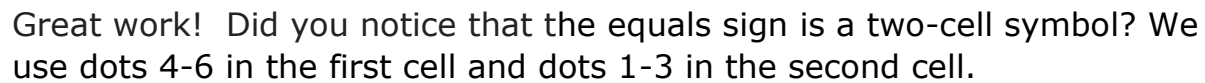
general omission symbol 1 4 plus sign general omission symbol

Answer: ⠠⠠⠠⠠⠠

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

general omission symbol 1 4 plus sign general omission symbol

Softly glide your fingers across the line of braille. In the middle of the line, you will find an equals sign. There is a line of dots 2-5 before and after the equals sign.



The student will make his/her favorite scooter sound each time he/she points to an equals sign at the following places:

Line 5: in the middle of the line

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Place your fingers on the correct keys on either the Accessible Equation Editor or your braillewriter. Then use your index and ring fingers on your right hand to write the first part of the equals sign. Practice writing dots 4-6 several times.

Answer: ⠠⠠⠠⠠⠠ (The directions are to write dots 4-6 several times, so there may be variation in how many times dots 4-6 is written. Any length of line is considered correct.)

Press the line spacing key twice. Afterwards use your index and ring fingers on your left hand to write the second part of the equals sign. Practice writing dots 1-3 several times.

Answer: ⠠⠠⠠⠠⠠ (The directions are to write dots 1-3 several times, so there may be variation in how many times dots 1-3 is written. Any length of line is considered correct.)

Now we are ready to put the two parts together to write an equals sign. You will use your index and ring fingers on your right hand first and then your index and ring fingers on your left hand second. Practice writing the equals sign one time.

Answer: ⠠⠠

Great work, Nemeth superstar! Move to the next line and practice writing the equals sign one time. When you finish writing the equals sign, move your fingers across the braille and check your work!

Answer: ⠠⠠

So how many fingers are you using on your right hand when writing an equals sign? Yes, you are using two fingers on your right hand. How many fingers are you using on your left hand when writing an equals sign? Yes, you are using two fingers on your left hand too. So 2 fingers equals 2 fingers and 2 dots equals 2 dots.

**Fun fact:** Another type of electric scooter is the self-balancing electric scooter that is sometimes called a hoverboard.

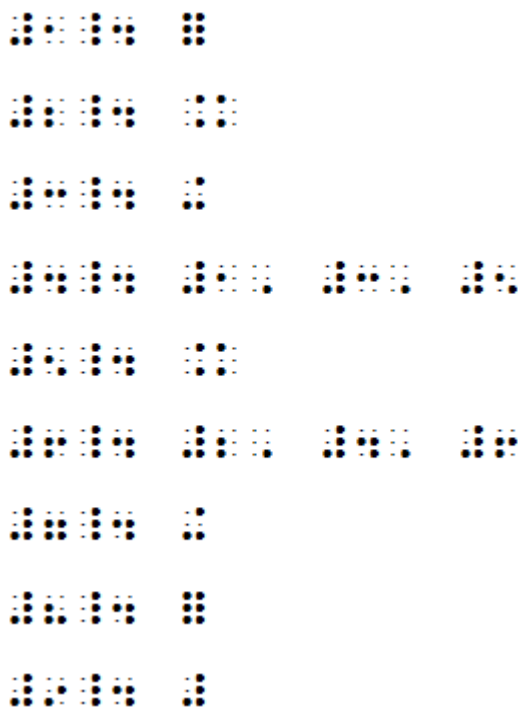
**Activity time:** You will need the Accessible Equation Editor and/or your braillewriter and braille paper for this activity. Listen and then braille what you hear.



**Note:** Repeat saying the problem 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 2 of the document entitled "B3 Module 5\_Answer Key for Writing Activities\_K".

1. general omission symbol
2. equals sign
3. plus sign
4. 1, 3, 5
5. equals sign
6. 2, 4, 6
7. plus sign
8. general omission symbol
9. numeric indicator
10. plus sign
11. equals sign

Answer:





**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 the equation 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 3 of the document entitled "B3 Module 5\_Answer Key for Writing Activities\_K".

$$1 = 1$$

$$5 = 5$$

$$2 = 2$$

$$4 = 4$$

$$3 = 3$$

$$0 = 0$$

Answer:

$$\begin{array}{r} 1 + 1 = 2 \\ 5 + 5 = 10 \\ 2 + 2 = 4 \\ 4 + 4 = 8 \\ 3 + 3 = 6 \\ 0 + 0 = 0 \end{array}$$

It's time for the fourth part of the adventure! The next line of braille contains an equation about adding two groups together. Let's read it together.

$$1 + 1 = 2$$

**Note:** The numeric indicator must be used before a number at the beginning of a braille line or following a space, but this is the first time we have encountered a number following an operation sign without a space. Also, we are just learning that a space must not be left before or after a sign of operation in most situations. This new non-use of the numeric indicator and non-spacing before and after a sign of operation along with the equals sign

*introduces the student to how to braille horizontal equations – a new mathematical concept.*

It begins with the numeric indicator followed by dots 2-3. What number is this? That's right. It's the number 2. Afterwards, there is a plus sign. Which dots make the plus sign? You got it! Dots 3-4-6 make the plus sign. Notice that there is not a numeric indicator after the plus sign. Also notice that there is not a space before or after the plus sign.

After the plus sign, there is a single dot 2. What number is made with the dot 2? Yes, the number is 1.

So far our equation reads 2+1. What follows the number 1? Yes, there is a space followed by an equals sign after the number 1.

Did you remember that it takes 2 braille cells to write an equals sign? It is dots 4-6 in the first braille cell followed by dots 1-3 in the second braille cell.

What follows the equals sign? That's right. The equals sign is followed by a space and then a general omission symbol. Dots 1-2-3-4-5-6 make a general omission symbol.

What number is the general omission symbol standing for in the equation? Let's use our Five Frame and pennies to find out.

**Note:** *Encourage the student to verbalize the process they use to determine what the general omission symbol is standing for. Provide assistance as needed.*

That's right! Two plus one equals three.

Try reading another equation. What does it begin with?



You got it! It begins with the number 2. What follows the number 2? Yes, there is a plus sign, followed by a 3. What dots make the plus sign? Yes, dots 3-4-6 make the plus sign. Did you remember that there is not a space before and after the plus sign?

Try reading the rest of the equation. You got it, Nemeth superstar! There is a space and then an equals sign. Afterwards, there is another space, followed by the general omission symbol.

What number is the general omission symbol standing for? Let's use our Five Frame and pennies to find out.

**Note:** Encourage the student to verbalize the process they use to determine what the general omission symbol is standing for. Provide assistance as needed.

That's right! Two plus three equals five. Let's try reading another equation together.



Yes, we would read the equation as 4 plus 0 equals what number. Let's use our Five Frame and pennies to find out what the general omission symbol is standing for.

How should we begin? Yes, we should place 4 pennies on the Five Frame. How many more pennies should we place on the Five Frame for the number 0? That is correct. We should not place any more pennies on the Five Frame because 0 means no objects.

So 4 plus 0 equals what number? Way to go! 4 plus 0 equals 4.

**Note:** Encourage the student to verbalize the process they use to determine what the general omission symbol is standing for. Provide assistance as needed.

Now read the equations below and tell me what number the general omission symbol stands for each time. Good luck, scooter racer!



Answer:

$$4+1 = ?$$

The general omission symbol stands for 5.

$$3+1 = ?$$

The general omission symbol stands for 4.

$$3+2 = ?$$

The general omission symbol stands for 5.

$$1+0 = ?$$

The general omission symbol stands for 1.

$$5+0 = ?$$

The general omission symbol stands for 5.

**Fun fact:** Some police officers ride a self-balancing electric scooter when patrolling indoors and outdoors. For example, police officers in some cities ride electric scooters when patrolling in subway stations and airports.

**Activity:** Use flash cards to practice reading equations. Afterwards, tell me what number the general omission symbol stands for. Once you can read all of the equations correctly, go back and time how quickly you can read the equations! Do you think you can read the equations even quicker? If so, try one more time!

Way to go, math superstar! For the fifth part of the adventure, let's learn how to write equations in braille. Place your fingers on the correct keys on either the Accessible Equation Editor or your braillewriter.

Begin by writing  $3+1 = ?$

**Note:** *An answer key in braille is provided on page 4 of the document entitled "B3 Module 5\_Answer Key for Writing Activities\_K".*

What should we braille first? Yes, we will begin by brailleing the number 3, followed by the plus sign.

How do we write a plus sign in braille? Yes, a plus sign is made with the dots 3-4-6. Remember that there will not be a space before or after the plus sign.

Next we will write the number 1. We will not need another numeric indicator. So we would press only the dot 2 after the plus sign to write the number 1.

We will need a space after the number 1 so we will press the space bar one time. How do we write the equals sign in braille? Yes, the equals sign begins with the dots 4-6, followed by the dots 1-3.

We will need another space after the equals sign. Then we will need to braille the general omission symbol. Dots 1-2-3-4-5-6 are used to write the general omission symbol.

Super work, Nemeth superstar! Move to the next line by pressing the line spacing key twice. Practice writing  $3+1 = ?$  several times. You will need to press your line spacing key twice to move to the next line before brailleing the equation each time.

Answer: (The directions are to write  $3+1 = ?$  several times, so there may be variation in how many times  $3+1 = ?$  is written. Any number of times is considered correct.)

**Note:** Repeat saying the equation  $3+1 = ?$  as many times as needed. Also remind the student to move his/her fingers across the braille and check his/her work if needed.

Let's practice brailleing another equation.

 $2+0 = ?$ 

**Note:** An answer key in braille is provided on page 4 of the document entitled "B3 Module 5 Answer Key for Writing Activities K".

What should we braille first? Yes, we will begin by brailleing the number 2, followed by the plus sign. How do we write a plus sign in braille? Yes, a plus sign is made with the dots 3-4-6. Will we need a space before or after the plus sign? That's right. We will not need a space.

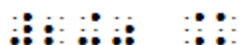
Next we will write the number 0. We do not need another numeric indicator because the number is coming after the plus sign. So we would press dots 3-5-6 after the plus sign to write the number 0.

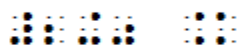
What should we braille next? Yes, we need a space and then an equals sign. How do we write the equals sign in braille? Yes, the equals sign begins with the dots 4-6, followed by the dots 1-3.

Will we need another space after the equals sign? Yes, we will need a space before and after an equals sign in braille. Then we will end the equation with a general omission symbol. What dots are used to write a general omission symbol? Yes, dots 1-2-3-4-5-6 are used to write the general omission symbol in braille.

Move to the next line by pressing the line spacing key twice. Practice writing  $2+0 = ?$  several times. You will need to press your line spacing key twice to move to the next line before brailleing the equation each time.

Answer: (The directions are to write  $2+0 = ?$  several times, so there may be variation in how many times  $2+0 = ?$  is written. Any number of times is considered correct.)







**Fun fact:** Most electric scooters are charged by plugging them into an electrical power outlet.

**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 equation 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 4 of the document entitled "B3 Module 5\_Answer Key for Writing Activities\_K".


$1+2 = ?$

$0+5 = ?$

$4+1 = ?$

$2+3 = ?$

Answer:









Let's try a few more. This time number the equations.



**Note:** If needed, remind the student how to number the equations, including the dot configuration for the punctuation indicator. Continue to repeat saying each equation as many times as needed.

1.  $1+3 = ?$

2.  $4+0 = ?$

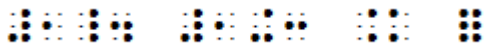
3.  $5+0 = ?$

4.  $3+2 = ?$

5.  $2+1 = ?$

Now go back to the equations that you wrote and tell me what number the general omission symbol is standing for each time.

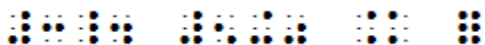
Answer:



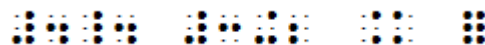
The general omission symbol stands for 4.



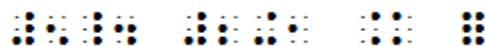
The general omission symbol stands for 4.



The general omission symbol stands for 5.



The general omission symbol stands for 5.



The general omission symbol stands for 3.

Let's review different ways we can make 5 with our Five Frame and pennies. What if we begin with 4 pennies? How many more will you need to make 5? That's right. We will need 1 more to make 5. So  $4+1$  equals 5.

If  $4 + 1$  makes 5, does  $1+4$  make 5 too?

**Note:** If needed, have the student remove the pennies from the Five Frame and build  $1+4$ .

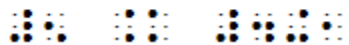
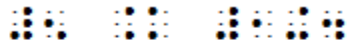
Can you think of another way to make the number 5?

**Note:** Possible responses include 5 and 0 as well as 3 and 2. Provide assistance as needed.

For the sixth part of the adventure, let's learn to read and write the ways that we can make 5 in equation form. Practice reading these equations first.

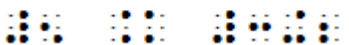
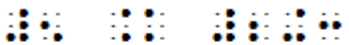
$$5 = 1+4$$

$$5 = 4+1$$



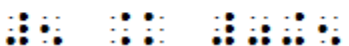
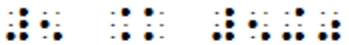
$$5 = 2+3$$

$$5 = 3+2$$



$$5 = 5+0$$

$$5 = 0+5$$



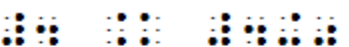
What are the different ways we can make 4 with our Five Frame and pennies? You got it! There are several ways we can make 4.

**Note:** Provide assistance as needed. If the student struggles in naming the first pair of numbers that make 4, you might ask what if we begin with 3 pennies.

Let's read the ways that we can make 4 in equation form.

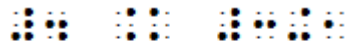
$$4 = 4+0$$

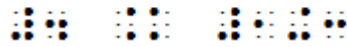
$$4 = 0+4$$



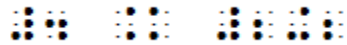
$$4 = 3+1$$

$$4 = 1+3$$

The image shows the Braille representation of the equation 4 = 3+1. The number 4 is represented by a numeric indicator followed by the dots 2-3. The equals sign is represented by dots 4-6 followed by dots 1-3. The plus sign is represented by dots 3-4-6. The number 1 is represented by the dots 1-3.

The image shows the Braille representation of the equation 4 = 1+3. The number 4 is represented by a numeric indicator followed by the dots 2-3. The equals sign is represented by dots 4-6 followed by dots 1-3. The plus sign is represented by dots 3-4-6. The number 3 is represented by the dots 1-2-3.

$$4 = 2+2$$

The image shows the Braille representation of the equation 4 = 2+2. The number 4 is represented by a numeric indicator followed by the dots 2-3. The equals sign is represented by dots 4-6 followed by dots 1-3. The plus sign is represented by dots 3-4-6. The number 2 is represented by the dots 2-3.

Let's practice writing  $4 = 2+2$ .

**Note:** *An answer key in braille is provided on page 5 of the document entitled "B3 Module 5\_Answer Key for Writing Activities\_K".*

What should we braille first? Yes, we will begin by brailing the Nemeth number 4. What should we braille next? Yes, we need a space and then an equals sign. How do we write the equals sign in braille? Yes, the equals sign begins with the dots 4-6, followed by the dots 1-3.

Will we need another space after the equals sign? Yes, we will need a space before and after an equals sign in braille. What should we write next? You got it! We will need a numeric indicator followed by the dots 2-3. This will be followed by the plus sign. How do we write a plus sign in braille? Yes, a plus sign is made with the dots 3-4-6. Will we need a space before or after the plus sign? That's right. We will not need a space.

Next we will write the number 2. We do not need another numeric indicator because the number is coming after the plus sign. So we would press dots 2-3 after the plus sign to write the number 2.

Move to the next line by pressing the line spacing key twice. Practice writing  $4 = 2+2$  several times. You will need to press your line spacing key twice to move to the next line before brailing the equation each time.

Answer: (The directions are to write  $4 = 2+2$  several times, so there may be variation in how many times  $4 = 2+2$  is written. Any number of times is considered correct.)

3 = 1 + 2

1 + 2 = 3

2 + 2 = 4

**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 equation 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 5 of the document entitled "B3 Module 5\_Answer Key for Writing Activities\_K".

3 = 1 + 2

1 + 2 = 3

2 + 2 = 4

5 = 0 + 5

5 + 0 = 5

4 = 3 + 1

2 = 1 + 1

2 + 3 = 5

Answer:

3 = 1 + 2

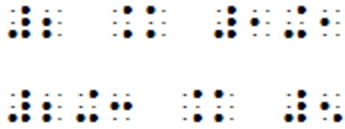
1 + 2 = 3

2 + 2 = 4

5 = 0 + 5

5 + 0 = 5

4 = 3 + 1



For the seventh part of the adventure, let's learn to use a chart similar to the Five Frame. It will help us learn about different ways to make 10. It is called a Ten Frame. Use your hands to explore the Ten Frame. Let's find the title and read it together.

**Note:** *Show the Ten Frame (available in uncontracted and contracted braille within the curriculum) to the student. It may help to place the Ten Frame on a nonslip surface such as a rubber shelf liner. You may also place the Ten Frame on a cookie sheet or magnetic board and use magnetic counters instead of pennies. The Tactile Tokens from APH fit perfectly into the Ten Frame and the two textures can represent the two addends. You can also use the shapes and line segments from the Picture Maker Wheatley Tactile Diagramming Kit to create the Ten Frame. It may be helpful to use a bowl to hold your counters/pennies.*

That's right! The title is at the top of the page. The title is Ten Frame. Now use your hands to locate the top row. Then move your hands across the top row of squares from left to right. Afterward count the squares in the top row. That is correct. There are five squares.

Next find the bottom row. Then move your hands across the bottom row from left to right. You got it! Afterward count the squares in the bottom row. That is correct. There are five squares.

When we use the Ten Frame, fill the top row up first, before moving to the bottom row.

Begin by placing 4 pennies on the Ten Frame. Good job! You remembered to begin by placing pennies on the top row, beginning on the far left. Remove the pennies from the Ten Frame and place them in a bowl. Now place 7 pennies on the Ten Frame.

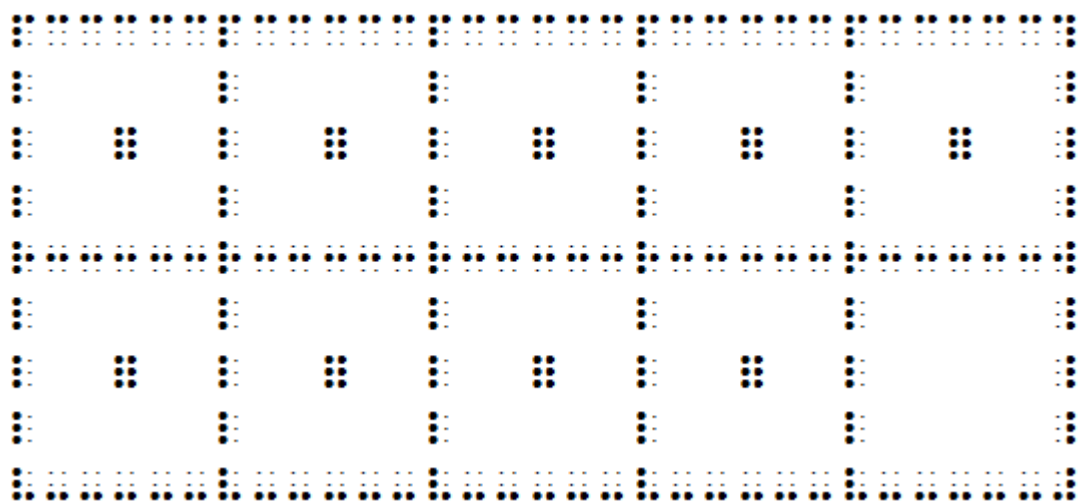
**Note:** *Encourage the student to verbalize the process they use for placing the pennies on the Ten Frame. Provide assistance as needed. It may be helpful to point out that 7 is two more than 5.*

Remove the pennies from the Ten Frame and place them in a bowl. Now as I call a number, place that many pennies on the Ten Frame.

2  
6  
3  
9  
0  
10

Nice work, math superstar! Sometimes we can use other objects or the general omission symbol instead of pennies with the Ten Frame. Now let's work together to determine how many more full braille cells are needed to make 10 on these partially filled Ten Frames.

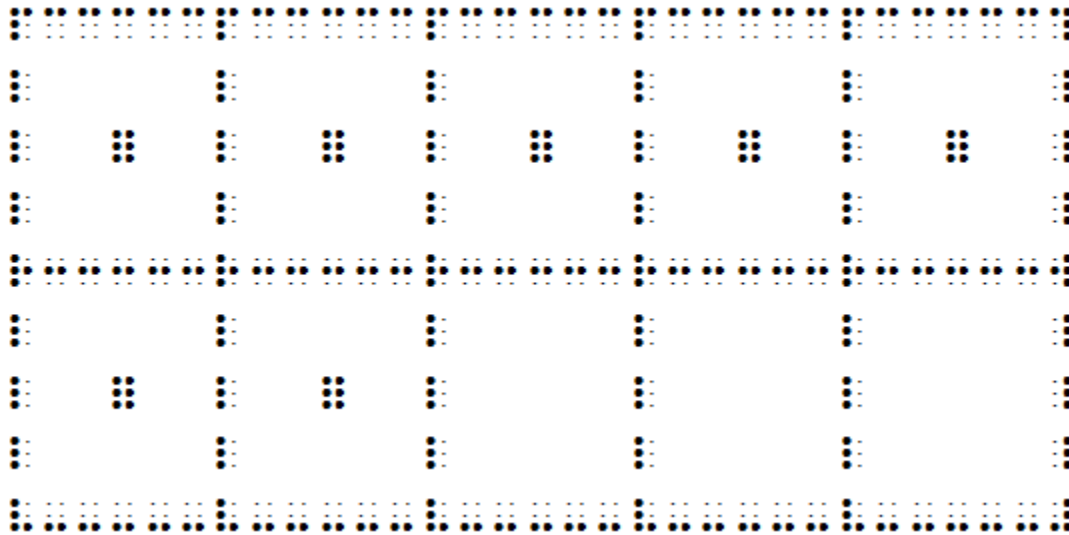
**Note:** Give a copy of the braille document entitled *Partially Filled Ten Frame Activity for Module 5* (available in uncontracted and contracted braille within the curriculum) page by page to the student. If preferred, each braille page may be cut into 2 so that there will only be one Ten Frame on each page.



How can we find out how many more full braille cells are needed to make 10 in this Ten Frame?

**Note:** There are several possible correct responses. The student may indicate that he/she can count the empty squares on the Ten Frame or count the number of full braille cells in his/her head. The student may also want to place additional objects on the Ten Frame until every square is filled.

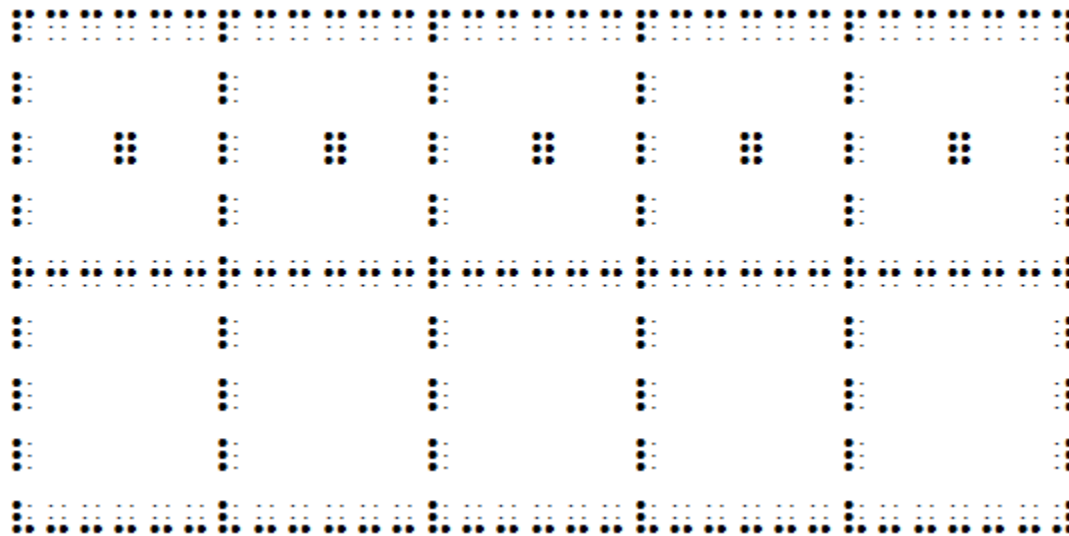
That's right! We need 1 more full braille cell to make 10. How many more full braille cells are needed to make 10 in the next Ten Frame?



Way to go! We need 3 more full braille cells to make 10. How did you know that we need 3 more pennies to make 10?

**Note:** Encourage the student to verbalize the process they use to determine how many more pennies are needed to make 10. There are several possible correct responses. The student may indicate that he/she counted the empty squares on the Ten Frame or counted the number of full braille cells in his/her head. The student may also place 3 additional objects on the Ten Frame so that each square is filled. Provide assistance if needed.

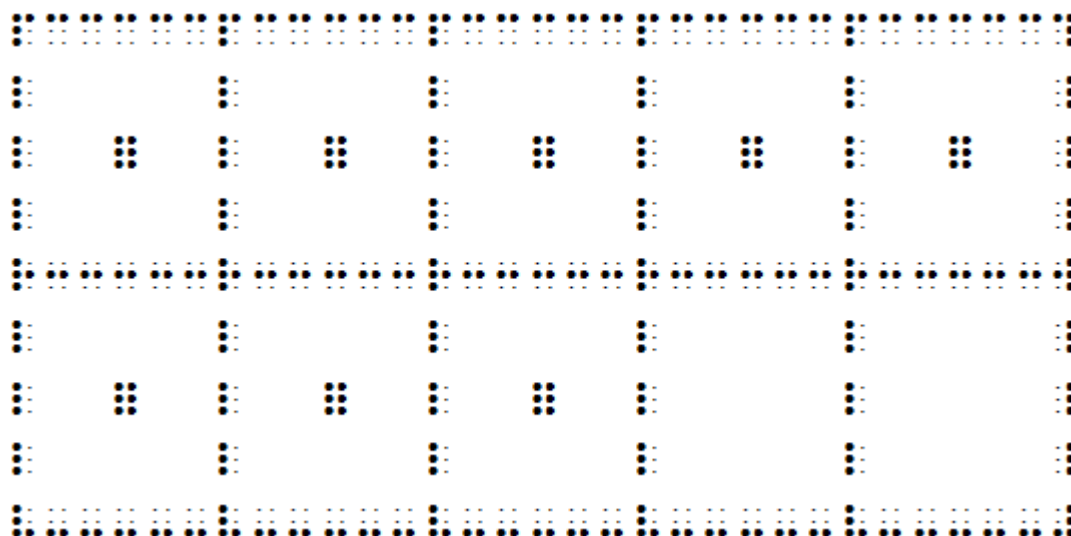
How many more full braille cells are needed to make 10?



You got it! We need 5 more full braille cells to make 10. How did you know that we need 5 more pennies to make 10?

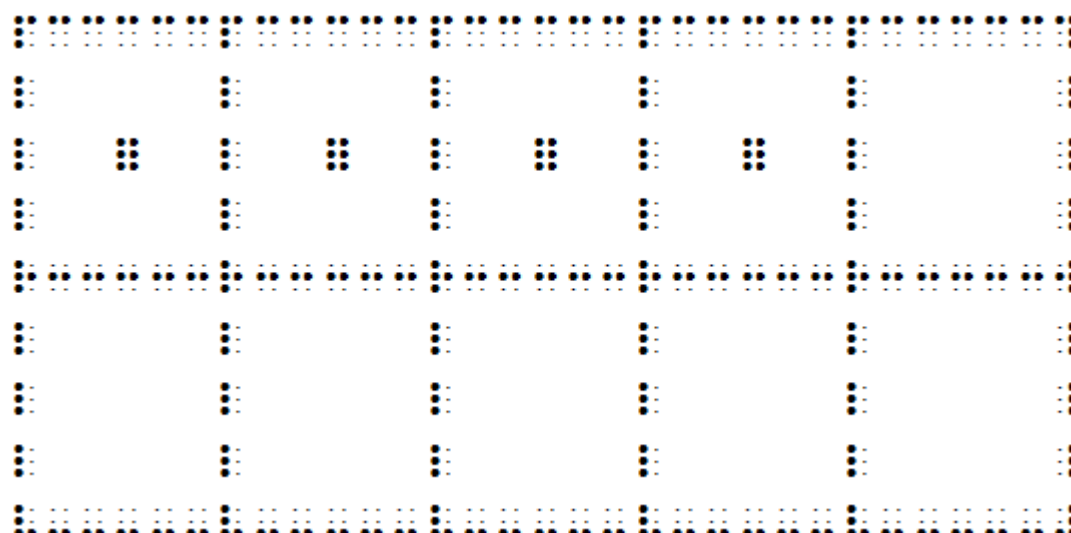
**Note:** Encourage the student to verbalize the process they use to determine how many more pennies are needed to make 10. Continue to provide assistance if needed.

How many more full braille cells are needed to make 10 on the next Ten Frame?



Yes, we need 2 more full braille cells to make 10. How did you know that we need 2 more pennies to make 10?

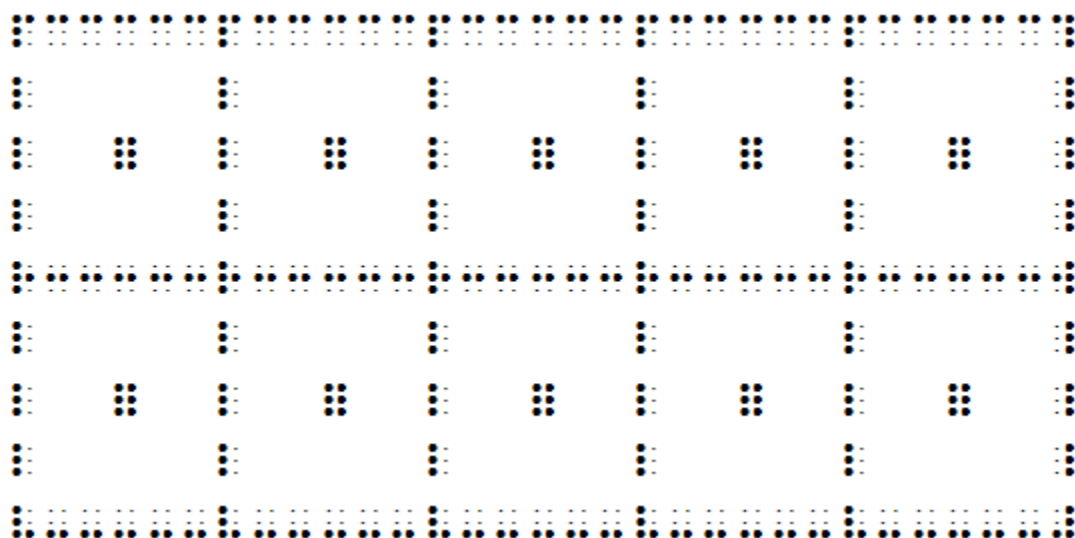
How many more full braille cells are needed to make 10 in the next Ten Frame?



That's right! We need 6 more full braille cells to make 10. How did you know that we need 6 more pennies to make 10?

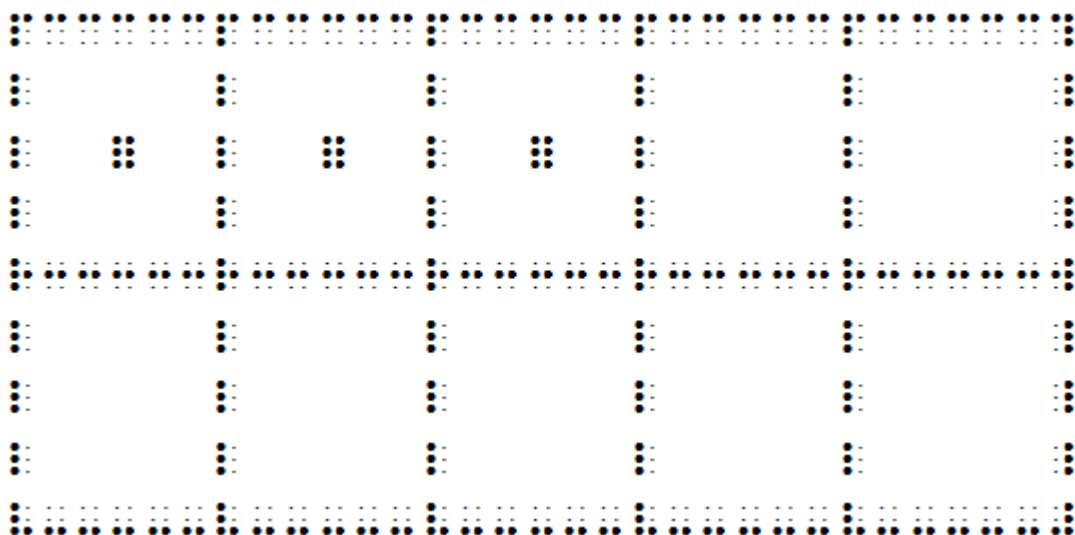


How many more full braille cells are needed to make 10 in the next Ten Frame?



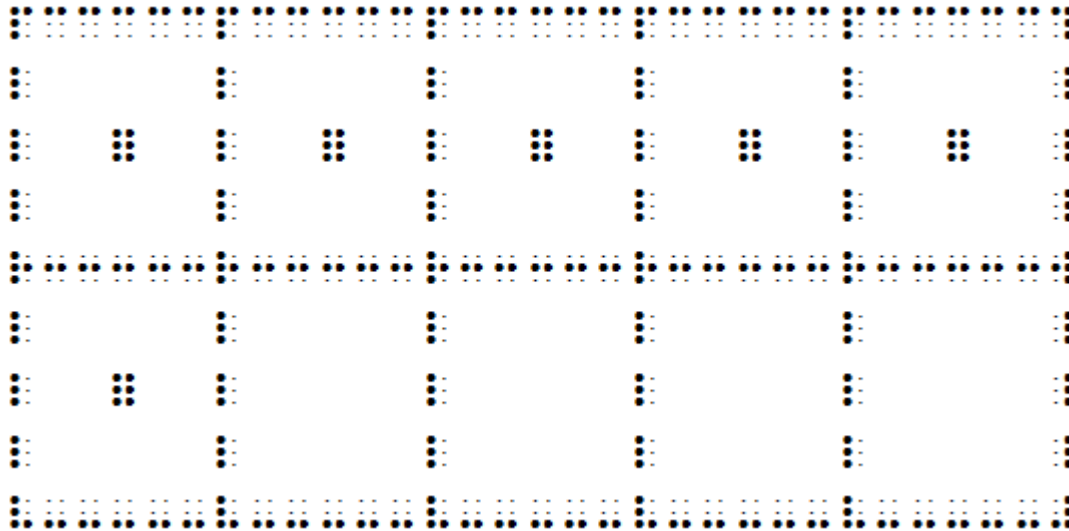
That's right! We do not need any more full braille cells to make 10. How do we know this? You got it! We already have 10!

How many more full braille cells are needed to make 10 in the next Ten Frame?



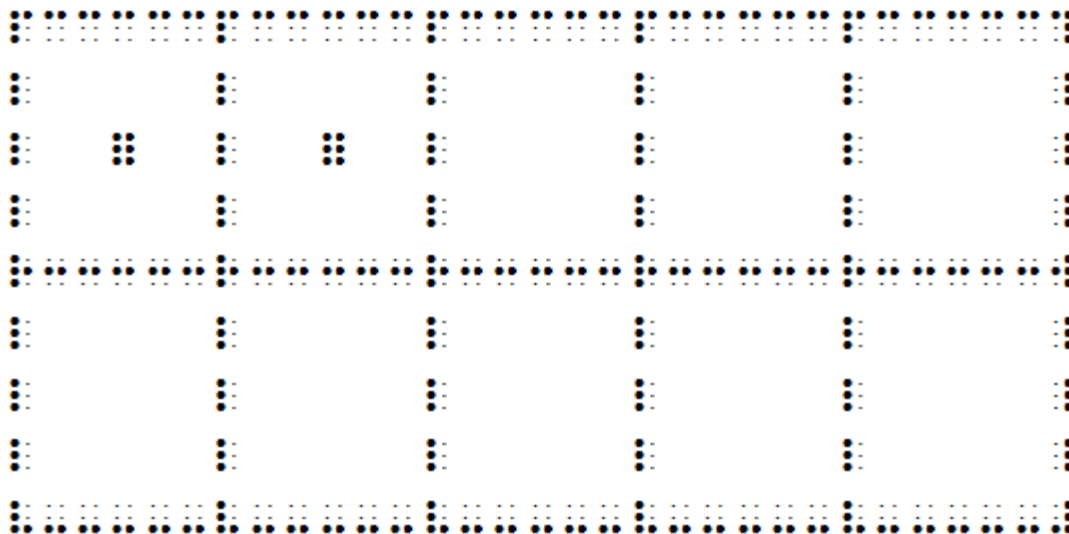
Yes, we need 7 more full braille cells to make 10. How did you know that we need 7 more pennies to make 10?

Just three more partially filled Ten Frames to go! How many more full braille cells are needed to make 10 in the next Ten Frame?



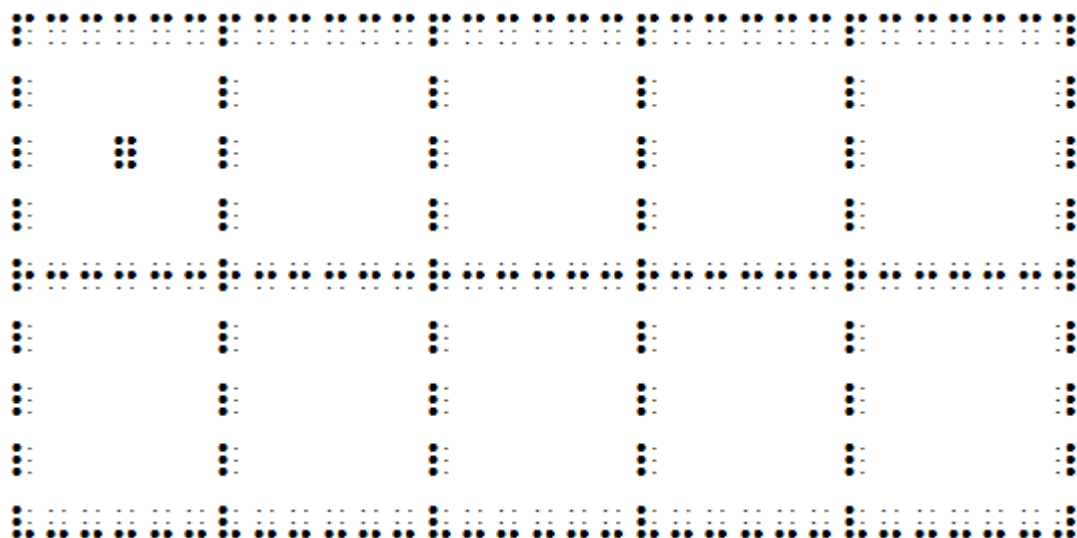
Yes, we need 4 more full braille cells to make 10. How did you know that we need 4 more pennies to make 10?

How many more full braille cells are needed to make 10 in the next Ten Frame?



Yes, we need 8 more full braille cells to make 10. How did you know that we need 8 more pennies to make 10?

Just one more to go! How many more full braille cells are needed to make 10 in the next Ten Frame?



You got it! We need 9 more full braille cells to make 10. How did you know that we need 9 more pennies to make 10?

**Activity time:** Let's play a game called "Zoom to 10" with our Ten Frame and pennies! We will also need a sorting tray and 2 flash cards for each numbers from 0-10.

**Note:** *You may also place the Ten Frame on a cookie sheet or magnetic board and use magnetic counters instead of pennies.*

Shuffle your flash cards and then draw a flash card. Read the number on the flashcard and then use your Ten Frame and pennies to tell me how many more are needed to make 10. As you read each number card, use a sorting tray to separate which cards you have read and which cards you have not read.

You will win the game if you can tell me how many more are needed to make 10 for all of the numbers before the timer goes off.

**Note:** *The length of time should be based on the individual needs of the student. If desired, this game can be played more than once. The length of time can be decreased each time in order to promote fluency.*

Now let's work together to solve word problems with our Ten Frame and pennies.

Adam made 3 goals during the soccer game, and Ravi made 4 goals. How many goals did they make altogether?

We can use pennies (or small pieces of Wikki sticks) on the Ten Frame to show the goals. How many goals did Adam make?

Yes, that's right! He made 3 goals. So we will need to place 3 pennies on the Ten Frame. We will only place 1 penny in each square, beginning with the one on the far left on the top row and then moving to the right.

How many goals did Ravi make? That's correct! Ravi made 4 goals, so let's place 4 more pennies on the Ten Frame. Place 4 more pennies on the Ten Frame, starting with the square just to the right of the first three pennies. Did you notice that you could only put two more pennies on the top row, and then you had to move to the bottom row to place the last two pennies? Did you remember to begin with the square on the far left?

How many goals did they make altogether? Let's count and find out.

Excellent counting! They made 7 goals.

Before we read another word problem, remove the pennies from the Ten Frame and place them back in the work tray.

There are 6 goats and a donkey resting in the pasture. How many animals are resting in the pasture altogether?

We can use pennies (or small pieces of Wikki sticks) on the Ten Frame to show the animals. How many goats are resting in the pasture?

Yes, that's right! There are 6 goats. How many pennies should you place on the Ten Frame? That's right. You will place 6 pennies on the Ten Frame.

There is also a donkey resting in the pasture. How many more pennies should we place on the Ten Frame? That is correct. We need to place 1 more penny on the Ten Frame.

**Note:** *Provide assistance as needed. Also encourage the student to verbalize the process that they use to solve the problem.*

How many animals are resting in the pasture? You got it! There are 7 animals resting in the pasture.

We can write an equation about the story problem.

**Note:** *An answer key in braille is provided on page 7 of the document entitled "B3 Module 5\_Answer Key for Writing Activities\_K".*

How many pennies did you place on the Ten Frame originally? That's right! You placed 6 pennies on the Ten Frame since there were 6 goats resting in the pasture. So what should you braille first? Yes, you will begin by brailing the number 6.

Let me know when you are finished. What happened next? Yes, we added 1 more penny to the Ten Frame since there was also a donkey resting in the pasture. So you should braille a plus sign and then the number 1 since you added 1 more penny to the Ten Frame.


How do you write an addition sign in braille? Yes, an addition sign is made with the dots 3-4-6. Remember that there will not be a space before or after the plus sign.

You will not need another numeric indicator after the plus sign. So you will press only the dot 2 after the plus sign to write the number 1.

Then you will need a space and an equals sign, so press the space bar one time. How do you write the equals sign in braille? Yes, the equals sign begins with the dots 4-6, followed by the dots 1-3.

You will need another space after the equals sign. Then you will need to braille the answer. How many animals are resting in the pasture altogether? That's right! There are 7 animals, so you will write the number 7. Don't forget to write a numeric indicator since the 7 is after an equals sign.

$$6+1 = 7$$

Answer: 

Super work, Nemeth superstar! Go to the next line and write the equation once more!

$$6+1 = 7$$

Answer: 

Let's try another one. Before we read another word problem, remove the pennies from the Ten Frame and place them back in the work tray.

The boy checked out 5 books from the media center on Tuesday. On Wednesday, he checked out 4 more books. How many books did he check out on Tuesday and Wednesday altogether?

Since the boy checked out 5 books on Tuesday, how many pennies should you place on the Ten Frame? That's right. You will place 5 pennies on the Ten Frame. On Wednesday he checked out 4 more books. How many more pennies should we place on the Ten Frame? That is correct. We need to place 4 more pennies on the Ten Frame.

So how many books did he check out on Tuesday and Wednesday altogether? Excellent counting! The boy checked out 9 books.

Let's write an equation about this story problem.

**Note:** *An answer key in braille is provided on page 7 of the document entitled "B3 Module 5\_Answer Key for Writing Activities\_K".*

How many pennies did you place on the Ten Frame originally? That's right! You placed 5 pennies on the Ten Frame since the boy checked out 5 books on Tuesday. So what should you braille first? Yes, you will begin by brailing the number 5.

Let me know when you are finished. What happened next? Yes, you placed 4 more pennies on the Ten Frame since the boy checked out 4 more books on Wednesday. So what should you braille next? That's right, you will braille a plus sign and then the number 4 since you placed 4 more pennies on the Ten Frame.

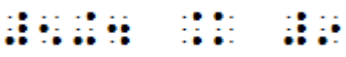
How do you write a plus sign in braille? Yes, a plus sign is made with the dots 3-4-6. Remember that there will not be a space before or after the plus sign.

You will not need another numeric indicator when you write 4. So you will press only the dots 2-5-6 after the plus sign to write the number 4.

You will need a space after the number 4 so you will press the space bar one time. How do you write the equals sign in braille? Yes, the equals sign begins with the dots 4-6, followed by the dots 1-3.

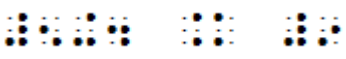
You will need another space after the equals sign. Then you will need to braille the answer. How many books did the boy check out altogether? That's right! He checked out 9 books, so you will write the number 9. Don't forget to write a numeric indicator since the 9 is after an equals sign.

$$5+4 = 9$$

Answer: 

Go to the next line and write the equation once more!

$$5+4 = 9$$

Answer: 

Now remove the pennies from the Ten Frame and place them back in the work tray. Now it is your turn to solve five word problems using the Ten

Frame and pennies by yourself. Use your braillewriter or Accessible Equation Editor to write your answers. Don't forget to number the problems and use your line spacing key twice between each problem!

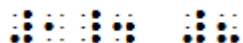
If you want to challenge yourself, write the equation instead of just your answer! I know you can do it!

**Note:** *Encourage the student to verbalize the process they use to solve the problem. Continue to provide assistance if needed. An answer key in braille is provided on page 7-8 of the document entitled "B3 Module 5\_Answer Key for Writing Activities\_K".*

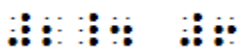
1. Thomas and his stepsister found 5 seashells on the beach. His cousin found 3 more seashells. How many seashells do they have altogether?
2. Sara helped her grandmother with the dishes. She washed 2 bowls and 4 plates. How many dishes did she wash altogether?
3. Cassie has a new job. She bakes bagels and muffins every day for the bagel shop. She baked 6 onion bagels and 4 blueberry muffins yesterday. How many items did she bake altogether?
4. Tony and his daughter collect baseball cards, so they visited a new baseball card shop together. Tony purchased 2 baseball cards, and his daughter purchased 5 baseball cards. How many baseball cards did they purchase altogether?
5. There are 7 red-eyed tree frogs and 3 waxy monkey frogs in the rainforest. How many frogs are there altogether in the rainforest?

Answer:

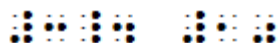
1. 8



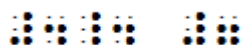
2. 6



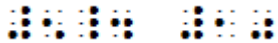
3. 10



4. 7



5. 10



Answer for Challenge Activity:



Let's continue the eighth part of the adventure by counting to 100 together.

1 2 3 4 5 6 7 8 9 10  
11 12 13 14 15 16 17 18 19 20  
21 22 23 24 25 26 27 28 29 30  
31 32 33 34 35 36 37 38 39 40  
41 42 43 44 45 46 47 48 49 50  
51 52 53 54 55 56 57 58 59 60  
61 62 63 64 65 66 67 68 69 70  
71 72 73 74 75 76 77 78 79 80  
81 82 83 84 85 86 87 88 89 90  
91 92 93 94 95 96 97 98 99 100

**Note:** *If the student stops counting before reaching 100, it may be helpful to practice counting to 100 before moving to the next section.*

That was super counting! Before we use the Grid Board to build a chart to 100, let's practice reading numbers together.



51 52 53 54





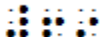

55      56      57      58


59      60      61      62

63      64      65      66





   

67      68      69      70

71      72      73      74      75

That was excellent reading! Let read the numbers from 51 to 75 together once more.

51      52      53      54



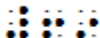

55      56      57      58


59      60      61      62

63      64      65      66

67      68      69      70

71      72      73      74      75

**Note:** If a student reads the numbers incorrectly, tell the student the correct way to read the number.

Answer:

62 55

69 70

61

55 64 53

Now read the number at the beginning of each line and then find its match on the line of braille. Say "scooter" when you find the match!

Revised 9/15/17

Answer:

The student will read the number at the beginning of each line, find its match, and say "scooter" when he/she finds the match.

Line 1: 52 (2<sup>nd</sup> item on answer choices)

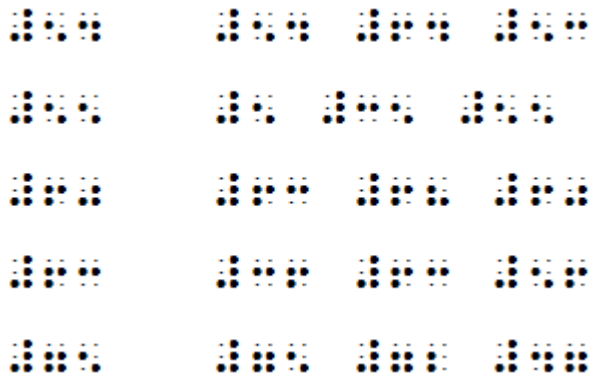
Line 2: 70 (last item on answer choices)

Line 3: 57 (1<sup>st</sup> item on answer choices)

Line 4: 64 (last item on answer choices)

Line 5: 73 (1<sup>st</sup> item on answer choices)

Excellent matching, Nemeth super star! Let's try a few more! Remember to say "scooter" when you find the match!



Answer:

The student will read the number at the beginning of each line, find its match, and say "scooter" when he/she finds the match.

Line 1: 54 (1<sup>st</sup> item on answer choices)

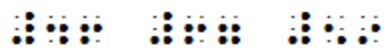
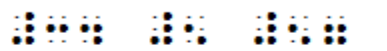
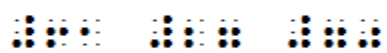
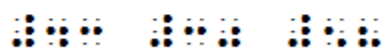
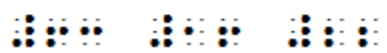
Line 2: 55 (last item on answer choices)

Line 3: 60 (last item on answer choices)

Line 4: 63 (2<sup>nd</sup> item on answer choices)

Line 5: 75 (1<sup>st</sup> item on answer choices)

Let's practice reading numbers from 1-75. There will be 3 numbers on each line.

Answer:

46 67 59

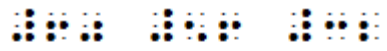
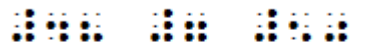
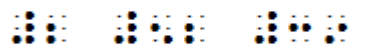
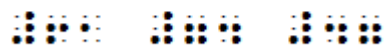
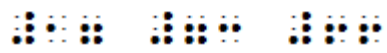
34 5 57

61 27 70

43 30 58

63 16 22

That was super reading! Let's try a few more.

Answer:

60 56 32

48 7 50

2 52 39

61 74 47

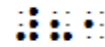
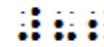
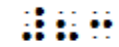
17 73 66

**Fun fact:** Many kick scooters are made of aluminum, just like soda cans.

Now we are ready to practice reading numbers 76-100 together.



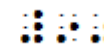

76      77      78      79

80      81      82      83

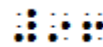

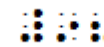
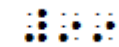
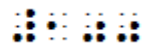
84      85      86      87

88      89      90      91

92      93      94      95


    

96      97      98      99      100

That was excellent reading! Let read the numbers from 76 to 100 together once more.



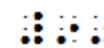

76      77      78      79

80      81      82      83

84      85      86      87

88      89      90      91

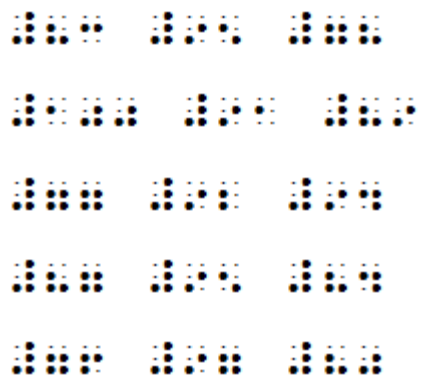
   

The figure consists of five 3x3 grids, each representing a state of a 3x3x3 cube. The grids are arranged horizontally. Each grid has a top row, a middle row, and a bottom row, with three columns. The squares are either black or white, representing the colors of the cube's faces. The sequence shows the cube being solved step by step, with the number of black squares decreasing from 12 in the first grid to 0 in the fifth grid.

Continue to the next line of braille and read just the numbers. All of the numbers will be from 76 to 100.

100  
77 88  
99 79  
84 90 83  
76  
73 85 81

38



Answer:

83 95 78

100 91 89

77 92 94

87 95 84

76 97 80

**Activity time:** Use your flash cards to practice reading the numbers 51-100. Once you can read all of the numbers correctly, go back and time how quickly you can read the numbers! Do you think you can read the numbers even quicker? If so, try one more time! You can do it!

Congratulations! You are a Nemeth champion!

**Fun fact:** Some scooters designed for young children are made of plastic.

For the ninth part of the adventure, let's use our Grid Board again to build a hundreds chart together. This time we will be building to 100. We will use all of the rows, similar to how we built charts to 10, 20, 30 and 50.

The Grid Board contains 10 rows. Place your hands on the top row of the Grid Board. A row goes from the left to the right. Move your hands across the row from left to right. Now place your hands on the bottom row of the Grid Board. Move your hands across the bottom row from left to right. You got it!

The Grid Board also contains 10 columns. A column goes from the top to the bottom. Place your hands on the column on the far left of the Grid Board. Move your hands down the column from top to bottom. Nice work! Now place your hands on the column on the far right of the Grid Board. Move your hands down the column from top to bottom. You got it!

**Note:** *Ensure that all numbers except 4, 8, 11, 13, 27, 28, 32, 37, 45, 49, 51, 53, 64, 67, 71, 77, 82, 86, 91, 96 have been removed from the Grid Board before continuing.*

Now I am going to place 2 numbers on each row of the board. Scan the top row from left to right and find the number.

What numbers did you find? Yes, the numbers are 4 and 8. Now find the number on the second row. What numbers did you find? That's right. The numbers are 11 and 13. What two numbers did you find on the third row? The numbers on the third row are 27 and 28.

Now find the fourth row. What numbers did you find? That is correct! The numbers are 32 and 37. Now find the fifth row. What numbers did you find? The numbers are 45 and 49. Find the sixth row. What numbers did you find? The numbers 51 and 53. Excellent work, Nemeth superstar!

Now find the seventh row. What numbers did you find? The numbers were 64 and 67. Move down, find the next row, and then read the numbers. Yes, the numbers are 71 and 77. Only two more rows to go!

Move down, find the next row, and then read the numbers. Yes, the numbers are 82 and 86. Now find the bottom row. What numbers did you find? That's correct! The numbers are 91 and 96. Excellent work!

Now let's work together to place the rest of the numbers from 1 to 100 on the Grid Board.

**Note:** *This would be an excellent time to use a sorting tray. If necessary, model how to separate the number cards into groups. This will make it easier to build the hundreds chart.*

Great work! Now read the numbers on the chart, beginning with 1. Ready, set, go!

Answer:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60



61 62 63 64 65 66 67 68 69 70  
71 72 73 74 75 76 77 78 79 80  
81 82 83 84 85 86 87 88 89 90  
91 92 93 94 95 96 97 98 99 100

Help me remove 5 numbers from each row of the Grid Board so that you can build the chart to 100 by yourself. You get to choose which numbers you remove.

**Note:** *If needed, provide a hard copy of numbers in order or the APH Number Board to use as a model. The APH Consumable Hundreds Chart can be used instead. It may also help to place the numbers on a nonslip surface such as a rubber shelf liner or a work tray so they will not move as much.*

Now try to build the chart to 100 by yourself! You did it! Way to go! Now remove all of the numbers and try to build the chart to 100 by yourself. On your mark, get set, go!

**Note:** *This activity may be repeated as needed.*

We can use our chart to help us begin counting with any number. For example, if we want to count beginning with 71 we would use our fingers to find 71 and what number is next to it on the hundreds chart. Find 71 on the chart. What number is next to it? That's right. 72 is next to 71. We are ready to count beginning with 71. Stop counting when you reach 100.

71 72 73 74 75 76 77 78 79 80  
81 82 83 84 85 86 87 88 89 90  
91 92 93 94 95 96 97 98 99 100

That was excellent counting! Now let's use our chart to count beginning with 58. What is the first step? That is correct. Begin by finding 58 on the chart. What is the next step? Find the number that is next to 58. You got it! 59 is next to 58.

You are ready to use the chart and count beginning with 58.

58 59 60  
61 62 63 64 65 66 67 68 69 70  
71 72 73 74 75 76 77 78 79 80  
81 82 83 84 85 86 87 88 89 90

91 92 93 94 95 96 97 98 99 100

**Activity time:** Use your chart and count beginning with the following numbers. You can stop counting each time when you reach 100.

First, count beginning with 43. Second, count beginning with 17. Third, count beginning with 84. Fourth, count beginning with 60.

Answer:

43 44 45 46 47 48 49 50  
51 52 53 54 55 56 57 58 59 60  
61 62 63 64 65 66 67 68 69 70  
71 72 73 74 75 76 77 78 79 80  
81 82 83 84 85 86 87 88 89 90  
91 92 93 94 95 96 97 98 99 100

17 18 19 20  
21 22 23 24 25 26 27 28 29 30  
31 32 33 34 35 36 37 38 39 40  
41 42 43 44 45 46 47 48 49 50  
51 52 53 54 55 56 57 58 59 60  
61 62 63 64 65 66 67 68 69 70  
71 72 73 74 75 76 77 78 79 80  
81 82 83 84 85 86 87 88 89 90  
91 92 93 94 95 96 97 98 99 100

84 85 86 87 88 89 90  
91 92 93 94 95 96 97 98 99 100

60  
61 62 63 64 65 66 67 68 69 70

71 72 73 74 75 76 77 78 79 80  
81 82 83 84 85 86 87 88 89 90  
91 92 93 94 95 96 97 98 99 100

For the next part of our adventure, let's practice using our chart to 100 to help us solve problems about "one more" and "one less". Tell me what number is one more than 73. That's right! 74 is one more than 73. What number is one more than 64? You got it now! 65 is one more after 64. What number is one more than 80? Yes, 81 is one more than 80.

Let's try a couple more. What number is one more than 38? That is correct! 39 is one more than 38. What number is one more than 91? You got it! 92 is one more than 91. Now give me an example about "one more".

Now let's try some problems about "one less". What number is one less than 72? You got it! 71 is one less than 72. What number is one less than 38? You got it! 37 is one less than 38.

Let's try another one. What number is one less than 56? You got it! 55 is one less than 56. Now give me an example about "one less".

**Fun fact:** It is important to wear a helmet when riding a scooter!

**Activity time:** You will not need any new materials for this activity. Listen carefully as I read each problem, and then use your chart to answer the questions aloud.

**Note:** Repeat saying each problem if needed. Also assist the student in locating the number on the chart as needed.

1. What number is one less than 94?

Answer: 93

2. What number is one more than 76?

Answer: 77

3. What number is one less than 47?

Answer: 46

4. What number is one more than 71?

Answer: 72

5. What number is one less than 83?

Answer: 82

Let's try a few more.

6. What number is one less than 61?

Answer: 60

7. What number is one more than 30?

Answer: 31

8. What number is one more than 52?

Answer: 53

9. What number is one less than 88?

Answer: 87

10. What number is one less than 94?

Answer: 93

That was excellent work! Now let's practice skip counting by 10s to 100 together.

10 20 30 40 50 60 70 80 90 100

Now let's use our hundreds chart as we skip count by 10s.

**Note:** *Count by 10s, beginning with 10. Have the student move their hands to the next row and count to 10 with you each time.*

What pattern did you notice? Yes, all of the numbers for skip counting by 10s are in the same column. A column goes up and down.

What do you think will happen if I change the starting number to 5? Will the patterns for skip counting by 10s remain the same or will it change? Will all of the numbers be in the same column? How do you know?

Let's skip count by 10s beginning with 5, using our chart, and find out.

5 15 25 35 45 55 65 75 85 95

**Note:** *Count by 10s, beginning with 5. Have the student move their hands from left to right and count to 10 with you each time.*

Notice how all of the numbers for skip counting by 10s beginning with 5 are in the same column again. The last digit for all of the numbers is 5.

Way to go! Now let's skip count by 10s using our column pattern. Begin with 2 and go down the column on the chart.

2 12 22 32 42 52 62 72 82 92

Let's try one more! Skip count by 10s beginning with 7, using our chart.

7 17 27 37 47 57 67 77 87 97

**Activity time:** Let's play "Guess My Special Number" again. The only thing you will need is your chart. Listen carefully to my clues so that you can guess my special number. Do you remember what a clue is? It is information that gives you a hint about my special number.

Here we go. My special number is on the bottom row, and it is one more than 98. What is my number?

That's right! My special number is 99. Let's try another. My special number is ten more than 60.

You got it! My special number is 70. Let's try another. My special number is ten less than 83.

My special number is 73. Listen carefully because this time I will be sharing two clues about my next special number.

My number is a two-digit number. It is one more than 87. Do you know what my special number is?

Excellent work, math detective! My number is 88. Let's try two more. My special number is a two-digit number, and it is ten more than 55. What is my special number?

Way to go! My number is 65. My special number is in the last column on the right and is one more than 59. What is my special number?

Yes, my special number is 60. Now it is your turn to give me clues so that I can figure out your special number.

**Note:** Offer assistance if the student has difficulty developing clues about his/her special number. If desired, the student can develop clues for additional numbers.

Now you are ready for the last stop: module 5 check-up! Thank you for all of your hard work! You are a Nemeth all-star!

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

Begin by using the Grid Board to create a chart to 100. Then see if you can follow the directions to my special number.

**Note:** If needed, provide a hard copy of numbers in order or the APH number board to use as a model. The APH Consumable Hundreds Chart can

*be used instead. It may also help to place the numbers on a nonslip surface such as a rubber shelf liner or a work tray so they will not move as much.*

Let's practice together the first time.

**Note:** *Pause at the end of each sentence to allow the student time to complete each step in the process. If the student seems to struggle, model the process for the student.*

Begin by finding the number 63. Next move down two rows. What is my number?

That is right! My number is 83.

Let's try another one together.

Begin by finding the number 40. Move up three rows. Now move three to the left. What is my number?

Perfect! My number is 13.

Now you try one by yourself. Here are the directions:

Begin by finding number 73. Move up one row. Now move to the left two numbers. Next move down two rows. What number are you on?

Excellent work with the 100s chart! My special number was 81.

Let's see if you can follow the directions to another special number.

Begin by finding number 38. Move up three rows. Now move to the right one number. Next move down five rows. Finally move to the left two numbers. What is my special number?

You got it! My special number is 57.

Follow the directions to find my last special number.

Begin by finding number 88. Move up four rows. Now move to the left two numbers. Next move down two rows. What is my special number?

You got it! My special number is 66.

Now it is your turn to give me directions to a special number!

**Note:** *The follow-up activity could easily be completed with peers as long as each student has a chart to 100.*