First Grade Nemeth Braille Code Curriculum
Module 6: Writing and Comparing Numbers

It's time to prepare for a ride in a blimp! Before we begin our adventure, let's explore different ways to find ten more or ten less than a given number.

Listen as I read a word problem. Mike has 23 stickers. Juan has ten more stickers than Mike, and Ryan has ten less stickers than Mike. How many stickers does each child have?

How could you figure out how many stickers each child has?

Note: *Give the student time to think about how they could determine how many stickers the children have. Afterwards, encourage the student to verbalize different strategies and tools that they could use to determine the answer to the question. There are several possible correct responses.*

We could use the base ten blocks to help us determine how many stickers each child has. Begin by building how many stickers Mike has.

Yes, you would need 2 tens blocks (rods) and 3 unit blocks to build 23. Ryan has ten fewer stickers, so how could we model ten less?

You got it! If I take one ten block away, then I would have one ten block and three unit blocks. So how many stickers does Ryan have?

Yes, Ryan has 13 stickers. Now that we know how many stickers Ryan has, let's figure out how many stickers Juan has.

Begin by building how many stickers Mike has. Yes, just like last time, we would need 2 ten blocks (rods) and 3 unit blocks to build 23. Juan has ten more sticks than Mike, so how could we model ten more?

That is correct! If I add one ten block, then we would have three ten blocks and three unit blocks. So how many stickers does Juan have?

Yes, Juan has 33 stickers.

Use your base ten blocks and try another word problem. Farmer Zeb has 38 cows. Farmer Ben has ten more cows than Farmer Zeb, and Farmer Jake has ten less cows than Farmer Zeb. How many cows does each farmer have?

Answer: Begin by building how many cows Farmer Zeb has. We would need 3 tens blocks and 8 unit blocks to build 38. Farmer Ben has ten more cows than Farmer Zeb. If I add one ten block, then we would have four ten blocks and eight unit blocks. Farmer Ben has 48 cows.

Then build how many cows Farmer Zeb has again. We would need 3 tens blocks and 8 unit blocks to build 38. Farmer Jake has ten less cows than Farmer Zeb. If I take one ten block away, then we would have two ten blocks and eight unit blocks. Farmer Jake has 28 cows.

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

Way to go, math superstar!

Fun fact: Unlike a hot air balloon, a blimp has a shape and structures that allow it to be maneuvered.

We can also use our Counting to 120 Chart to help us solve problems about ten more or ten less.

Note: *The Counting to 120 Chart is included in the curriculum. Please note the chart incorporates a 40 cell line. There is not a title in the braille document so that all of the numbers fit on one page.*

Let's warm up by using your Counting to 120 Chart to skip count by 10s.

10 20 30 40 50 60 70 80 90 100 110 120

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.

Now use your Counting to 120 Chart to skip count by 10s, beginning with 3.

3 13 23 33 43 53 63 73 83 93 103 113

Note: *Count by 10s, beginning with 3. If needed, have the student keep their place on 3 with their left hand and move their right hand to the next row and count to 10 with you each time. Make sure they notice that their right hand ends up directly under where they started. Don't give this away, but try to help them discover the pattern.*

What pattern did you notice? Yes, once again, all of the numbers were in the same column.

Now let's use our Counting to 120 Chart and figure out what number is ten more than 45. Begin by finding 45 on your chart.

We can count ten more and see how many it is.

46 47 48 49 50 51 52 53 54 55

Note: *Have the student keep their place on 45 with their left hand and move their right hand to the next row and count to 10 with you.*

Yes, 55 is ten more than 45.

Did you notice your right hand ends up directly under where you started, just like when you skip counted? Try another problem. What number is ten more than 77?

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

Answer: Hopefully, they will realize that they can go directly under the 77 to find 87.

You got it! 87 is ten more than 77. What number is ten more than 39?

Note: *Encourage the student to verbalize the process that they use to solve the problem. Once again, provide assistance as needed.*

Answer: Hopefully, they will realize that they can go directly under the 39 to find 49.

Yes, 49 is ten more than 39.

Now let's use our Counting to 120 Chart and figure out what number is ten less than 88. Begin by finding 88 on your chart.

We can count ten less and see how many it is. Notice this time we are counting backwards.

87 86 85 84 83 82 81 80 79 78

Note: *Have the student keep their place on 87 with their left hand and move their right hand to the previous row and count 10 less with you.*

Yes, 78 is ten less than 88.

Did you notice your right hand ends up directly above where you started? Try another problem. What number is ten less than 51?

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

Answer: Hopefully, they will realize that they can go directly above the 51 to find 41.

You got it! 41 is ten less than 51.

Let's continue to practice using our Counting to 120 Chart to help us solve problems about ten more and ten less. Tell me what number is ten more than 103. That's right! 113 is ten more than 103. What number is ten more

than 64? You got it now! 74 is ten more after 64. What number is ten more than 90? Yes, 100 is ten more than 90.

Let's try a couple more. What number is ten more than 108? That is correct! 118 is ten more than 108. What number is ten more than 19? You got it! 29 is ten more than 19. Now you give me an example about ten more.

Answer: The student can ask what number is ten more than any number from 1 through 110.

Now let's try some problems about ten less. What number is ten less than 82? You got it! 72 is ten less than 82. What number is ten less than 39? You got it! 29 is ten less than 39.

Let's try another one. What number is ten less than 117? You got it! 107 is ten less than 117. Now you give me an example about ten less.

Answer: The student can ask what number is ten less than any number from 11 through 120.

Fun fact: A blimp is usually shaped like a hot dog and holds helium gas.

Activity time: You will not need any new materials for this activity. Listen carefully as I read each problem, and then use your Counting to 120 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 ten less than 115?

Answer: 105

2. What number is ten more than 86?

Answer: 96

3. What number is ten more than 107?

Answer: 117

4. What number is ten less than 29?

Answer: 19

5. What number is ten less than 120?

Answer: 110

Let's try a few more.

6. What number is ten less than 91?

Answer: 81

7. What number is ten more than 100?

Answer: 110

8. What number is ten more than 62?

Answer: 72

9. What number is ten less than 58?

Answer: 48

10. What number is ten less than 113?

Answer: 103

That was excellent work!

It is time for a ride in a blimp! We will board one by one as the returning passengers get out one by one of the cabin called a gondola. The helium level in the blimp is perfectly balanced with the weight of the passengers, so we must be careful! As we board, let's review how to write numbers in standard form and expanded form.

Begin by locating the first line of braille on page 1. Softly glide your fingers across the braille. It says First Grade Nemeth. Now move your hands down to the second line of braille on the page. It says Curriculum Module 6. Now move your hands down to the third line of braille on the page. There is just one symbol on the third line. It is on the left side of the page.

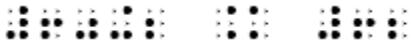
Do you remember what this symbol is called? You got it! It is called an opening Nemeth Code indicator! This symbol tells us that we are going to read math or science.

Now let's read the next line of braille together.

62 = 60+2

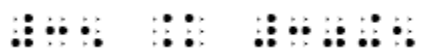
Another way of writing this equation is written on the line below.

60+2 = 62

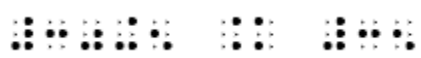


Now read the next two lines of braille along with me.

35 = 30+5



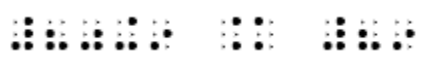
30+5 = 35



Now try reading the next five lines by yourself!

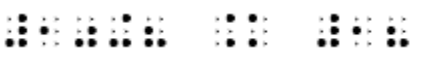
89 = 80+9

80+9 = 89



74 = 70+4

10+8 = 18



60+1 = 61

That was super reading!

Fun fact: The part of the blimp that holds the helium is called an envelope. It is made with fabric that is similar to the fabric used for space suits.

Read the number at the top of page 2.

Yes, the number is 67. When we write numbers in numerical digits, we are using standard form. We can also expand the number by showing the value of each digit. We call this expanded form.

Read the second line of braille for an example of a number in expanded form.

Answer: 20+3

I will give you a number in expanded form, and then you will write the number in standard form. You may use either the Accessible Equation Editor and/or your braillewriter and braille paper. Space one time between the numbers.

Note: *Repeat saying each number in expanded form as many times as needed. An answer key in braille is provided on page 1 of the document entitled "B3 Module 6_Answer Key for Activities_1".*

60+2

30+7

70+1

20+2

90+4

50+0

Answer: 62 37 71 22 94 50

Let's check your work together. Read your answers one at a time!

Fun fact: Rudders mounted to the tail are used to steer a blimp.

Next I will give you a number in standard form, and you will write the number in expanded form. You may use either the Accessible Equation Editor and/or your braillewriter and braille paper.

We will write the first two numbers in expanded form together.

Note: *An answer key in braille is provided on page 1 of the document entitled "B3 Module 6_Answer Key for Writing Activities_1".*

The first number is 82. How do we begin?

Yes, we will begin with the number eighty, followed by a plus sign. How do we write a plus sign in braille?

Yes, we will write a plus sign 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.

Answer: 80+2

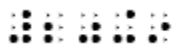
Move to the next line by pressing the line spacing key twice. Let's try another one together. The next number is 29. How do we begin?

Yes, we will begin with the number twenty, followed by a plus sign. How do we write a plus sign in braille?

You got it! We will write a plus sign 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 9. We do not need another numeric indicator because the number is coming after the plus sign. So we would press dots 3-5 after the plus sign to write the number 9.

Answer: 20+9



Now it is time for you to write several numbers in expanded form by yourself. Just let me know if you need help. Good luck, pilot!

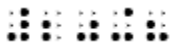
Note: *Repeat saying each number in standard form as many times as needed. An answer key in braille is provided on page 1 of the document entitled "B3 Module 6_Answer Key for Writing Activities_1".*

45

Answer: 40+5

28

Answer: 20+8



92

Answer: 90+2

68

Answer: 60+8

26

Answer: 20+6

Let’s check your work together. Read your answers one at a time!

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

For the first part of the activity, read each number in expanded form, beginning with the third line of braille on page 2. Then write the number in standard form. Space one time between the numbers.

Note: *An answer key in braille is provided at the top of page 2 of the document entitled “B3 Module 5_Answer Key for Writing Activities_1”.*

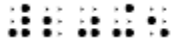
90+4

Answer: 94

30+2

Answer: 32

20+5



Answer: 25

70+5

Answer: 75

30+9

Answer: 39

40+0

Answer: 40

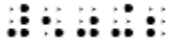
80+7

Answer: 87

For the second part of the activity, read each number in standard form at the top of page 3 and then write the number in expanded form. Press your line spacing key twice to go to a new line each time.

52

Answer: 50+2

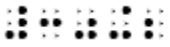


68

Answer: 60+8

32

Answer: 30+2

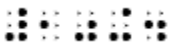


71

Answer: 70+1

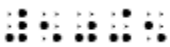
14

Answer: 10+4



55

Answer: 50+5



60

Answer: 60+0

Fun fact: Two engines on a blimp provide the thrust necessary to move through the air.

The ground crew is letting go of the ropes, and the pilot is turning on the engines and angling the nose of the blimp toward the sky. Within moments, we will be floating high above the ground.

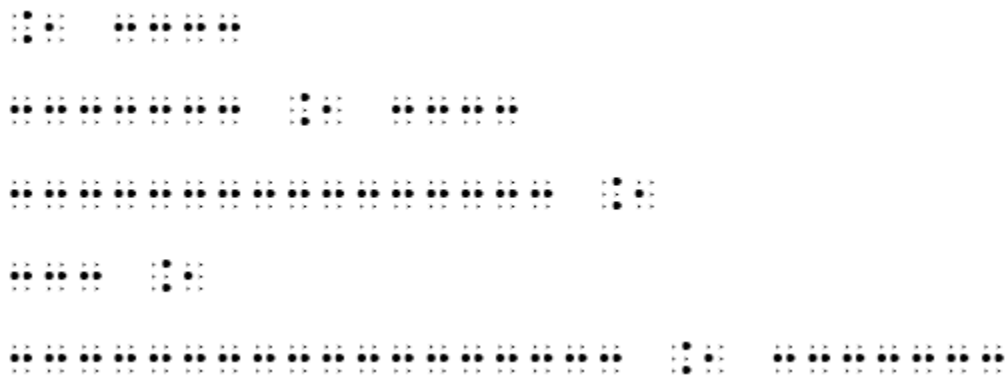
The engines are noisy, so it is important that we wear headphones throughout our journey. This will protect our hearing and allow us to communicate over the sounds of the engine. As we begin our journey, let’s

learn two new signs of comparison. These Nemeth symbols are used when we have different quantities or values.

Locate the top line of braille on page 4, and softly guide your fingers across it. In the middle of the line, you will find the Nemeth symbol for greater than. There is a line of dots 2-5 before and after the greater than sign.

Great work, pilot! Did you notice that the greater than sign is a two-cell symbol? We use dots 4-6 in the first cell and dot 2 in the second cell.

Now it is your turn to find the greater than sign in each line of braille. Move your fingers lightly across the line of braille and say "is greater than" when you find the Nemeth symbol for greater than!



Answer:

The student will say "is greater than" when he/she points to a Nemeth greater than 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

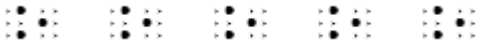
Line 4: at the end of the line

Line 5: toward the end of the line

Great work, Nemeth superstar! Let's learn how to write a greater than sign in braille. It will take us two braille cells to write a greater than sign. In the first braille cell, we will need the dots 4-6. In the second cell, we will need the dot 2.

There is a space before and after the greater than sign since it is a sign of comparison. Notice that you begin brailling using two fingers of the right hand, followed by one finger of the left hand. You will always use your right hand first and then your left hand. It is a pattern. Also, two fingers are "greater than" one finger, and two dots are "greater than" one dot.

Place your fingers on the correct keys on either the Accessible Equation Editor or your braillewriter. Then practice writing a greater than sign several times.

Answer:  (The directions are to write the greater than sign several times, so there may be variation in how many times the greater than sign is written.)

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 symbols, numbers, and problems 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 6_Answer Key for Writing Activities_1".*

1. greater than sign

Answer:

2. plus sign

Answer:

3. general omission symbol

Answer:

4. 80+3

Answer:

5. equals sign

Answer:

6. 117

Answer: ⠼⠑⠼⠑ ⠼⠑⠢⠑

7. greater than sign

Answer: ⠼⠑⠼⠑ ⠈⠕

8. 60+5

Answer: ⠼⠋⠼⠑ ⠼⠋⠚⠢⠑

9. minus sign

Answer: ⠼⠑⠤⠼⠑ ⠤

10. greater than sign

Answer: ⠼⠑⠢⠼⠑ ⠈⠕

Fun fact: A ground crew follows a blimp wherever it goes, and pilots of blimps must be certified for lighter-than-air crafts by the Federal Aviation Administration in the United States.

Locate the top line of braille on page 5, and softly guide your fingers across it. In the middle of the line, you will find the Nemeth symbol for less than. There is a line of dots 2-5 before and after the less than sign.

⠒⠒⠒ ⠈⠪ ⠒⠒⠒

Did you notice that the less than sign is also a two-cell Nemeth symbol? We use dot 5 in the first cell and dots 1-3 in the second cell.

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

⠒⠒⠒⠒⠒⠒⠒⠒⠒⠒⠒⠒⠒⠒ ⠈⠪

⠈⠪ ⠒⠒⠒⠒⠒⠒

⠒⠒⠒⠒⠒⠒⠒⠒⠒⠒ ⠈⠪ ⠒⠒⠒⠒⠒⠒⠒⠒⠒⠒

⠒⠒⠒ ⠈⠪ ⠒⠒⠒⠒⠒⠒⠒⠒⠒

⠒⠒⠒⠒⠒⠒⠒⠒⠒⠒⠒⠒⠒⠒

The student will say "is less than" when he/she points to a Nemeth less than sign at the following places:

Line 1: at the end of the line

Line 2: at the beginning of the line

Line 3: toward the middle of the line

Line 4: toward the beginning of the line

Line 5: at the end of the line

Good job, pilot! Now it is time to learn how to write a less than sign in braille. It will take us two braille cells to write a less than sign. In the first braille cell, we will need a dot 5. In the second cell, we will need the dots 1-3.

There is also a space before and after the less than sign since it is a sign of comparison. Notice that you begin brailling using one finger of the right hand, followed by two fingers of the left hand. You always use your right hand first, and then you left hand. It is a pattern. Also, one finger is "less than" two fingers, and one dot is "less than" two dots.

Place your fingers on the correct keys on either the Accessible Equation Editor or your braillewriter. Then practice writing a less than sign several times.

Answer: ⠀⠈⠣⠀ ⠀⠈⠣⠀ ⠀⠈⠣⠀ ⠀⠈⠣⠀ ⠀⠈⠣⠀ (The directions are to write the less than sign several times, so there may be variation in how many times the less than sign is written.)

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 symbols, numbers, and problems 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 6_Answer Key for Writing Activities_1".*

1. less than sign

Answer: ⠀⠈⠣⠀

2. 30+8

Answer: ⠼⠛ ⠼⠊⠚

3. greater than sign

Answer: ⠼⠛ ⠐⠜

4. long dash

Answer: ⠼⠛ ⠠⠠⠠⠠

5. less than sign

Answer: ⠼⠋ ⠐⠪

6. 90+4

Answer: ⠼⠊⠚ ⠼⠙⠲⠙

7. 120

Answer: ⠼⠁⠃ ⠼⠁⠚

8. greater than sign

Answer: ⠼⠁ ⠐⠜

9. 87

Answer: ⠼⠓ ⠼⠛⠇

10. less than sign

Answer: ⠼⠑ ⠐⠪

Fun fact: Some blimps are equipped with electric lights so that they can be flown at night.

Excellent writing! We use these new Nemeth symbols when the quantity on one side is different than the quantity on the other side. Guide your fingers across the first line of braille on page 6 as I read an example aloud.

7 > 1

⠼⠛ ⠐⠜ ⠼⠁

Note: *This would be read as 7 is greater than 1. Point out that the greater than sign is voiced as "is greater than".*

Notice that there is a space before and after the greater than sign. In addition, the numbers before and after the greater than sign begin with a numeric indicator.

The greater than sign allows us to explain the relationship between the numbers 7 and 1. Seven is more than one. In other words, the first number, 7, is larger than the second number, 1.

Let's build both of the numbers with base ten blocks (or Digi-blocks) to confirm that 7 is more than 1.

Yes, seven unit blocks is more than one unit block. Let's read another inequality together.

2 < 8

Note: *This would be read as 2 is less than 8. Point out that the less than sign is voiced as "is less than".*

The less than symbol also allows us to explain the relationship between two numbers. Two is less than eight. In other words, the first number, 2, is less than the second number, 8.

Let's build both of the numbers with base ten blocks (or Digi-blocks) to confirm that 2 is less than 8.

Yes, two unit blocks is less than eight unit blocks.

The long dash is sometimes used when a sign of comparison is missing. When reading an inequality or equation with a long dash, you will read the long dash as "blank". Let's read the next line of braille together.

4 ____ 9

Yes, this would be read as four blank nine. Which sign of comparison is missing and how do you know?

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

Answer: Build both of the numbers with base ten blocks (or Digi-blocks). Four unit blocks is less than nine unit blocks. So, you would use the less than sign. Four is less than 9.

Fantastic! Yes, you would use the less than sign. Four is less than 9.

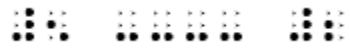
Let's try another one. Read the inequality and then tell me which sign of comparison is missing.

10 ____ 3

Answer: Build both of the numbers with base ten blocks (or Digi-blocks). One tens block is greater than three unit blocks. So, you would use the greater than sign. Ten is greater than 3.

Excellent work, Nemeth superstar! Yes, you would use the greater than sign. Ten is greater than 3. Now you try three more on your own.

5 ____ 2



Answer: Build both of the numbers with base ten blocks (or Digi-blocks). Five unit blocks is greater than three unit blocks. So, you would use the greater than sign. Five is greater than 2.

6 ____ 8

Answer: Build both of the numbers with base ten blocks (or Digi-blocks). Six unit blocks is less than eight unit blocks. So, you would use the less than sign. Six is less than 8.

0 ____ 10

Answer: Build both of the numbers with base ten blocks (or Digi-blocks). Zero unit blocks is less than one tens block. So, you would use the less than sign. Zero is less than 10.

Fun fact: In 1852, Henri Giffard built the first blimp, which consisted of a gas-filled bag with a propeller and steam engine.

We can also use the less than and greater than signs when comparing two digit numbers. Read the next line along with me.

39 > 13

It would be read as 39 is greater than 13. Let's begin by building both of the numbers with base ten blocks (or Digi-blocks).

When we compare two-digit numbers, we begin by comparing the digits in the tens column if they are different. The number with more tens is the greater number; the number with less tens is the smaller number.

The digits in the tens column are different in 39 > 13. How many tens and ones are in 39?

Yes, 39 has 3 tens and 9 ones. How many tens and ones are in 13?

You got it! Thirteen has 1 ten and 3 ones. Which number, 39 or 13, has more tens?

That is excellent! Since 39 has 3 tens and 13 only has 1 ten, 39 is the larger number. So the first number, 39, is greater than the second number, 13.

We could have also used our Counting to 120 Chart to determine if the first number is smaller or larger than the second number. Begin by finding the first number on the chart. Keep your left hand on the first number, and then find the second number on the chart with your right hand. What do you notice?

Note: *Responses may vary. Don't give it away, but try to help the student discover that when their right hand ends up above their left hand, the first number is larger than the second number.*

That's right! The first number, 39, is larger or "greater than" the second number, 13.

Read the next inequality.

69 < 95

The digits in the tens column are also different in this inequality. How many tens and ones are in 69?

Yes, 69 has 6 tens and 9 ones. How many tens and ones are in 95?

You got it! Ninety-five has 9 tens and 5 ones. Which number, 69 or 95, has more tens?

Yes, 95 has more tens. So 69 is smaller than 95. In other words, the first number, 69, is less than the second number, 95.

Once again, we could have also used our Counting to 120 Chart to determine if the first number is smaller or larger than the second number. Begin by finding the first number on the chart. Keep your left hand on the first number, and then find the second number on the chart with your right hand. What do you notice?

Note: *Responses may vary. Don't give it away, but try to help the student discover that when their right hand ends up below their left hand, the first number is smaller than the second number.*

That is correct! The first number, 69, is smaller or "less than" the second number, 95.

Fun fact: Blimps have soft sides. When the gas is released, the blimp collapses.

Let's talk through another inequality together. Begin by reading the inequality

57 > 52

That is correct. It would be read as 57 is greater than 52.

Build both of the numbers with base ten blocks (or Digi-blocks) and let's compare them. When we compare two-digit numbers, we begin by comparing the digits in the tens column if they are different.

How many tens and ones are in 57?

Yes, 57 has 5 tens and 7 ones. How many tens and ones are in 52?

You got it! Fifty-two has 5 tens and 2 ones.

Both 52 and 57 have 5 tens, so we will need to compare the digits in the ones column to determine which number is bigger.

Fifty-seven has 7 ones, and 52 has 2 ones. Thus, 57 is greater than 52.

Once again, we could have also used our Counting to 120 Chart to determine the relationship between the numbers. Begin by finding the first number on the chart. Keep your left hand on the first number, and then find the second number on the chart with your right hand. What do you notice?

Note: *Responses may vary. Don't give it away, but try to help the student discover that his/her hands are on the same row since both numbers have 5 tens. When the student's right hand ends up to the left of the first number, the first number is larger or "greater than" the second number.*

That is correct! The first number, 57, is larger or "greater than" the second number, 52.

Read the last inequality on page 6.

63 ____ 34

That is correct. It would be read as 63 blank 34. Which sign of comparison is missing and how do you know?

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

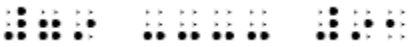
Answer: 63 has 6 tens and 3 ones. 34 has 3 tens and 4 ones. Since 63 has 6 tens and 34 only has 3 tens, 63 is the larger number. So 63 is greater than 34. Or the student could have used the Counting to 120 Chart to determine the relationship between the numbers.

Now turn to page 7 and let's try four more together.

85 ____ 24

Answer: 85 has 8 tens and 5 ones. 24 has 2 tens and 4 ones. Since 85 has 8 tens and 24 only has 2 tens, 85 is the larger number. So 85 is greater than 24. Or the student could have used the Counting to 120 Chart to determine the relationship between the numbers.

79 ____ 91



Answer: 79 has 7 tens and 9 ones. 91 has 9 tens and 1 one. Since 79 has 7 tens and 91 has 9 tens, 91 is the larger number. So 79 is less than 91. Or the student could have used the Counting to 120 Chart to determine the relationship between the numbers.

64 ____ 54

Answer: 64 has 6 tens and 4 ones. 54 has 5 tens and 4 ones. Since 64 has 6 tens and 54 only has 5 tens, 64 is the larger number. So 64 is greater than 54. Or the student could have used the Counting to 120 Chart to determine the relationship between the numbers.

75 ____ 2

⠼⠛⠑ ⠼⠃

Answer: 75 has 7 tens and 5 ones. 2 has 0 tens and 2 ones. Since 75 has 7 tens and 2 has zero tens, 75 is the larger number. So 75 is greater than 2. Or the student could have used the Counting to 120 Chart to determine the relationship between the numbers.

Fun fact: Blimps are more fuel efficient than planes or cars.

Activity time: You will not need any additional materials for this activity. Read the inequalities at the bottom of page 7 and find the long dash. After you find the long dash, write the missing sign of comparison. Don't forget to number your problems. Good luck, math superstar!

Note: *Encourage the student to verbalize the process they use to determine the missing number. Provide assistance as needed. An answer key in braille is provided at the top of page 5 of the document entitled "B3 Module 1_Answer Key for Writing Activities_1".*

1. 79 ____ 57

⠼⠛⠊ ⠼⠑⠛

Answer: ⠼⠛⠊ ⠣ (Greater than)

2. 15 ____ 21

⠼⠁⠑ ⠼⠃⠁

Answer: ⠼⠁⠑ ⠪ (Less than)

3. 32 ____ 36

⠼⠉⠃ ⠼⠉⠋

Answer: ⠼⠉⠃ ⠪ (Less than)

4. 90 ____ 13

⠼⠊⠚ ⠼⠁⠉

Answer: ⠼⠲⠼⠲ ⠨⠂ (Greater than)

5. 71 ____ 68

⠼⠲⠼⠲ ⠼⠶⠂ ⠤⠤⠤⠤ ⠼⠖⠦

Answer: ⠼⠲⠼⠲ ⠨⠂ (Greater than)

6. 40 ____ 42

⠼⠖⠼⠲ ⠼⠲⠼ ⠤⠤⠤⠤ ⠼⠲⠂

Answer: ⠼⠖⠼⠲ ⠐⠅ (Less than)

The blimp is starting its slow but steady descent. For the last part of the adventure, let's have fun writing inequalities with the greater than and less than signs.

54 > 48

Note: *When voicing the inequality, say "54 is greater than 48." An answer key in braille is provided in the middle of page 5 of the document entitled "B3 Module 6_Answer Key for Writing Activities_1".*

What should we braille first?

Yes, we will begin by brailling the number 54. What should we braille next?

Yes, we need a space and then a greater than sign. How do we write the greater than sign in braille?

You are correct! The greater than sign begins with the dots 4-6, followed by the dot 2.

Will we need another space after the greater than sign?

Yes, we will need a space before and after a greater than sign in braille. What should we write next?

You got it! We will write the number 48.

Answer: ⠼⠲⠲ ⠨⠂ ⠼⠲⠦

Now move to the next line by pressing the line spacing key twice and let's braille an inequality with a less than sign together.

74 < 93

Note: *When voicing the inequality, say "74 is less than 93." An answer key in braille is provided in the middle of page 5 of the document entitled "B3 Module 6_Answer Key for Writing Activities_1".*

What should we braille first?

Yes, we will begin by brailling the number 74. What should we braille next?

Yes, we need a space and then a less than sign. How do we write the less than sign in braille?

That is correct! The less than sign is brailled with the dot 5, followed by dots 1-3.

Will we need another space after the less than sign?

Yes, we will need a space before and after a less than sign in braille. What should we write next?

You got it! We will finish writing the inequality with the number 93.

Answer:

Fun fact: Blimps sometimes fly overhead above football stadiums and other sporting events.

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 inequality 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 6 of the document entitled "B3 Module 1_Answer Key for Writing Activities_1".*

65 > 32 Read as "65 is greater than 32"

Answer:

17 < 43 Read as "17 is less than 43"

Answer:

76 < 77 Read as "76 is less than 77"

Answer:

93 > 39 Read as "93 is greater than 39"

Answer: ⠼⠔⠒ ⠨⠂ ⠼⠒⠔

28 < 76 Read as "28 is less than 76"

Answer: ⠼⠆⠦ ⠐⠅ ⠼⠶⠖

63 < 68 Read as "63 is less than 68"

Answer: ⠼⠖⠒ ⠐⠅ ⠼⠖⠦

55 > 41 Read as "55 is greater than 41"

Answer: ⠼⠢⠢ ⠨⠂ ⠼⠲⠂

68 > 59 Read as "68 is greater than 59"

Answer: ⠼⠖⠦ ⠨⠂ ⠼⠢⠔

We have drifted back to the ground and thanks to the pilot and ground crew, we had a soft landing!

Now that we are back safely on the ground, you are ready for the module 6 check-up! Thank you for all of your hard work! You are a Nemeth all-star!

Follow-up activity:

We are going to play a new game called Less Than, Greater Than, and Equals. It was created by Carolyn Mason from Texas.

In order to play the game, we will need game cards and a way to keep track of points for each player.

Note: *Additional information about the game is available in the Teacher Reference Materials, and the game cards are included in a separate document. You will need 2-4 players for this game. It can easily be played with students who read print or braille. If some of the players read print, add print to the game cards.*

Suggestions for how to keep track of points include: APH Score Card Set, an abacus, craft sticks in a container, or your braillewriter.

The first player to get 20 points wins the game! We will take turns drawing a card. If you draw a “less than” card and read it correctly, you get one point. If you draw a “greater than” card and read it correctly, you get two points. If you draw an “equals” card, you get zero points. If you draw a “sayings” card, follow the directions.