4

Mathematics

Quarter 1 – Module 3:
Comparing and Ordering Numbers Up to 100 000

ALTERNATIVE DELIVERY MODE

ADM

What I Need to Know

Every time we look around, we tend to compare things like which one is faster, taller or bigger. Similarly, we also compare numbers and determine which ones are greater, lesser or even equal in value.

After going through this module, you are expected to:

1. compare numbers up to 100 000 using relation symbols; and
2. order numbers up to 100 000 in increasing and decreasing order.

What I Know

Let us try to see what you know about comparing and ordering.

Remember to use a separate sheet for your answers.

Which of the following shows correct comparison? Write the letter of the correct answer.

1.

a. 15 677 > 10 234

c. 99 009 = 99 090

b. 23 465 < 12 999

d. 45 324 > 54 140

2.

a. 17 987 = 17 789

c. 10 459 < 10 495

b. 39 847 > 93 111

d. 12 954 < 11 986

3.

a. 87 239 > 88 777	c. 75 878 = 75 878
b. 63 534 < 36 656	d. 1 290 > 9 890

4.

a. 9 128 = 9 218	c. 79 786 > 97 687
b. 22 100 > 19 978	d. 1 111 < 777

5.

a. 4 013 > 4 085	c. 68 587 < 78 999
b. 33 303 = 33 330	d. 52 478 > 52 654

B. Arrange in increasing order.

6. 3 200 , 3 100 , 3 500
7. 4 786 , 2 645 , 4 991
8. 18 193 , 27 200 , 18 220

C. Arrange in decreasing order.

9. 15 789 , 15 987 , 15 897
10. 10 123 , 10 321 , 10 213

Are you done answering?
If yes, time to check. Please go to page 10 for the ***Answer Key***.

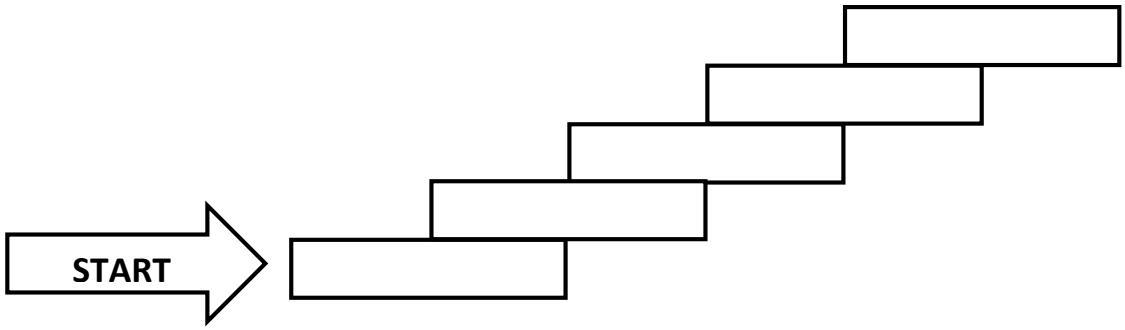
What's In

Let us review first some of the concepts that can help you understand comparing and ordering numbers.

A. Which number is greater? Write your answers in your notebook.

1.	919	199
2.	1 543	1 345
3.	2 400	2 433
4.	9 888	9 000
5.	15 251	51 010

B. Write the following numbers in the ladder box (804, 1 975, 12 002, 999, 9 685). Start with the number with the smaller value.



Are you done answering?

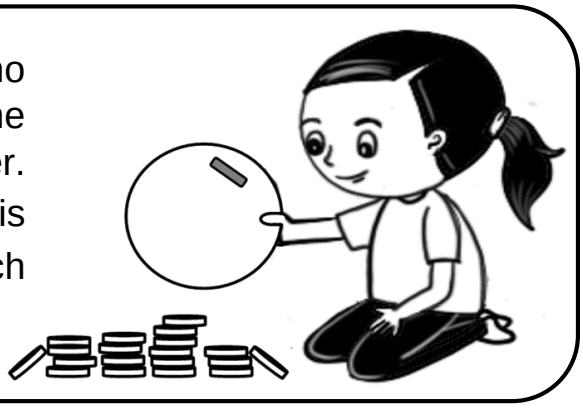
If yes, time to check. Please go to page 10 for the ***Answer Key***.

What's New

This time, we will be comparing and ordering numbers up to 100 000. Let us start the lesson with the help of this story problem.

Read the story problem.

Marjorie is a little girl who saves her extra money because she wishes to buy a gift for her mother. Last April, she saved ₱687. This May, she saved ₱678. In which month did she save more?



What is asked in the problem?
What are the given facts that can help you solve the problem?
What can you say about Marjorie? What kind of child is she?

What is It

When comparing two numbers, you can follow these steps:

1. Align the digits with the same place value.

2. Starting from left, compare the digits in each place value.

3. The first pair of digits that are of different values will determine which number is greater or less.

Study the table below:

Compare the digits in the hundreds place.	Compare the digits in the tens place.
687 ↕ 678 (same digits in the hundreds place)	687 ↕ 678 (8 is bigger than 7)

Therefore, 687 is bigger than 678.

So, Marjorie saved more money last April.

You can also show your answer by using the symbol **>** ***(greater than sign)*** to show that the first number is bigger than the other.

So, 687 > 678.
(Read as 687 is greater than 678.)

If you are comparing numbers where the first number is smaller than the other, you can use the symbol **<** ***(less than sign)***.

So if you will compare 2 139 and 2 234, we say 2 139 is less than 2 234.

2 139 **<** 2 234

If the two numbers that you are comparing are of equal value, you can use the symbol **=** ***(equal sign)*** to show that the two numbers are equal.

So if you will compare 63 147 and 63 147, we say 63 147 is equal to 63 147.

63 147 **=** 63 147

Therefore, **>**, **<** and **=** are the symbols we use to compare numbers.

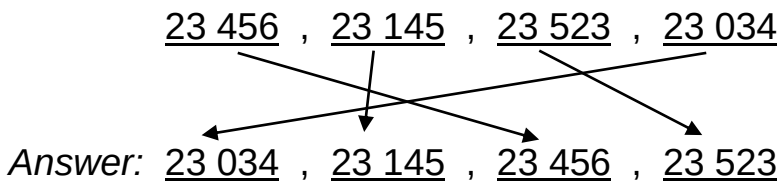
Now that you already know how to compare numbers up to 100 000, it will be easy for you to arrange them.

Numbers can be arranged in increasing and decreasing order.

To arrange numbers in ***increasing order***, compare the numbers and find out which is smaller or greater. Then arrange the numbers from the smallest to the biggest in value.

Look at the given example:

Arrange the following numbers in increasing order:



Answer: 23 034 , 23 145 , 23 456 , 23 523

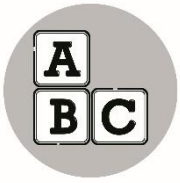
To arrange numbers in ***decreasing order***, compare the numbers and find out which is smaller or greater. Then arrange the numbers from the biggest to the smallest in value.

Look at the given example:

Arrange the following in decreasing order:

23 456 , 23 145 , 23 523 , 23 034

Answer: 23 523 , 23 456 , 23 145 , 23 034



What's More

Let us see if you already know how to compare and order numbers from 10 001 to 100 000.

Activity 1. Write the symbols **>**, **<**, or **=** on the space between the numbers to compare their value.

1. 67 890 _____ 67 089
2. 56 789 _____ 56 567
3. 98 456 _____ 98 654
4. 21 456 _____ 21 456
5. 87 672 _____ 90 009

Activity 2.

A. Arrange in increasing order.

1. 11 000 , 10 000 , 8 000
2. 23 675 , 23 756 , 23 890
3. 78 123 , 67 234 , 87 234

B. Arrange in decreasing order.

4. 14 789 , 14 987 , 14 123
5. 70 345 , 70 900 , 70 009

Are you done answering?

If yes, time to check. Please go to page 10 for the ***Answer Key***.

What I Have Learned

You are doing great!

Just always remember:

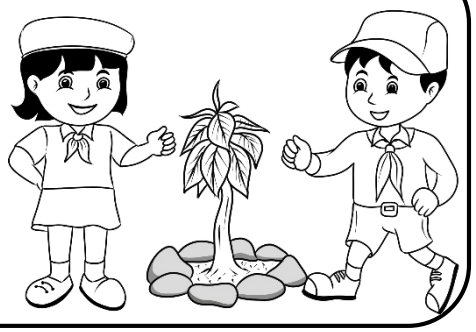
1. When comparing numbers, we use the symbols **>** (greater than)**, <** (less than), and **=** (equals).
2. To arrange numbers in ***increasing order***, compare the numbers and find out which is smaller or greater. Then arrange the numbers from smallest to biggest in value.
3. To arrange numbers in ***decreasing order***, compare the numbers and find out which is smaller or greater. Then arrange the numbers from the biggest to the smallest in value.

What I Can Do

Let us see if you are now ready to solve this problem.

Read and understand the problem, then answer the questions that follow.

A group of teenagers is conducting a tree-planting activity. They have 4 579 Narra seedlings, 10 785 Mahogany and 25 090 Acacia seedlings. Arrange the number of seedlings in decreasing order.



1. What can you say about the teenagers? What kind of persons are they?
2. Arrange the number of seedlings in decreasing order.

*(*Please go to page 10 for the ***Answer Key***.)*

Assessment

You are now ready for the next activity.

A. Write the symbols **>** , **<** , or **=** sign on the space between the numbers to compare their value.

1. 57 238 ____ 57 129
2. 16 109 ____ 16 897
3. 88 000 ____ 88 000
4. 20 456 ____ 21 567
5. 90 000 ____ 89 999

B. Arrange in increasing order.

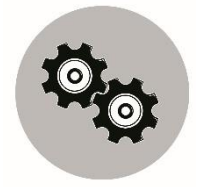
6. 21 020 , 10 030 , 17 040
7. 43 675 , 23 734 , 33 590
8. 78 123 , 67 234 , 87 234

C. Arrange in decreasing order.

9. 27 789 , 27 987 , 27 123
10. 17 345 , 17 900 , 17 009

Are you done answering?

If yes, time to check. Please go to page 10 for the ***Answer Key***.



Additional Activities

Let us try some more.

Read and answer the problem.

1. Write all the four-digit numbers that can be formed out of the digits 1, 2, 3 and 4 with no digits repeated and determine how many of these numbers are greater than 2 300?

2. A municipality is implementing a tree planting activity. It has 11 230 Narra seedlings, 32 100 Mahogany seedlings, and 23 500 Acacia seedlings. Arrange the number of seedlings in increasing and decreasing order.

*(*Please go to page 10 for the ***Answer Key***.*)*

CONGRATULATIONS! You are learning very well.
See you in the next module.

Answer Key

What I Know (pages 1 and 2)

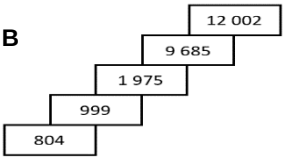
1. a
2. c
3. c
4. b
5. c
6. 3 100, 3 200, 3 500
7. 2 645, 4 786, 4 991
8. 18 193, 18 220, 27 200
9. 15 987, 15 897, 15 789
10. 10 321, 10 213, 10 123

What's In (pages 2 and 3)

A

1. 919
2. 1 543
3. 2 433
4. 9 888
5. 51 010

B



What's More (page 6)

Activity 1

1. >
2. >
3. <
4. =
5. <

Activity 2

A

1. 8 000, 10 000, 11 000
2. 23 675, 23 756, 23 890
3. 67 234, 78 123, 87 234

B

4. 14 987, 14 789, 14 123
5. 70 900, 70 345, 70 009

What I Can Do (page 7)

1. They are stewards of nature.
2. 25 090 , 10 785 , 4 579

Assessment (page 8)

A

1. >
2. <
3. =
4. <
5. >

B

6. 10 030, 17 040, 21 020
7. 23 734, 33 590, 43 675
8. 67 234, 78 123, 87 234

C

9. 27 987, 27 789, 27 123
10. 17 900, 17 345, 17 009

Additional Activities (pages 8 and 9)

1. Four-digit numbers that can be formed out of the digits 1, 2, 3 and 4 with no digits repeated

   1 234, 1 243, 1 324, 1 342, 1 423, 1 432
   2 134, 2 143, 2 314, 2 341, 2 413, 2 431
   3 124, 3 142, 3 214, 3 241, 3 412, 3 421
   4 123, 4 132, 4 213, 4 231, 4 312, 4 321

- there are 16 numbers greater than 2 300

2. increasing order-11 230, 23 500, 32 100
   decreasing order – 32 100, 23 500, 11 230