4

Mathematics

Quarter 1 – Module 1:
Visualizing Numbers
up to 100 000

Mathematics – Grade 4
Alternative Delivery Mode
Quarter 1 – Module 1: Visualizing Numbers up to 100 000
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Secretary: Leonor Magtolis Briones
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Development Team of the Module

Writers: Criselda Natalicio Lagamayo, Elena D. Hubilla

Editor : Loyd H. Botor

Reviewer: Loyd H. Botor

Illustrator: Jason C. Borabo

Layout Artist: Teresa Vissia B. Suñga

Management Team: Regional Director: Gilbert T. Sadsad
CLMD Chief: Francisco B. Bulalacao Jr.
Regional EPS In Charge of LRMS: Grace U. Rabelas
Regional ADM Coordinator: Ma. Leilani R. Lorico
CID Chief : Monserat D. Guemo
Division EPS In Charge of LRMS: Florena M. Deuna

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Department of Education – Region V

Office Address: Regional Center Site, Rawis, Legazpi City 4500
Telefax: 0917-178-1288
E-mail Address: region5@deped.gov.ph

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Mathematics

Quarter 1 – Module 1:
Visualizing Numbers
up to 100 000

Introductory Message

For the facilitator:

Welcome to the Mathematics Grade 4 Alternative Delivery Mode (ADM) Module on Visualizing Numbers up to 100 000!

This module was collaboratively designed, developed and reviewed by educators both from public and private institutions to assist you, the teacher or facilitator in helping the learners meet the standards set by the K to 12 Curriculum while overcoming their personal, social, and economic constraints in schooling.

This learning resource hopes to engage the learners into guided and independent learning activities at their own pace and time. Furthermore, this also aims to help learners acquire the needed 21st century skills while taking into consideration their needs and circumstances.

In addition to the material in the main text, you will also see this box in the body of the module:

Notes to the Teacher

This contains helpful tips or strategies that will help you in guiding the learners.

As a facilitator, you are expected to orient the learners on how to use this module. You also need to keep track of the learners' progress while allowing them to manage their own learning. Furthermore, you are expected to encourage and assist the learners as they do the tasks included in the module.

For the learner:

Welcome to the Mathematics 4 Alternative Delivery Mode (ADM) Module on Visualizing Numbers up to 100 000!

This module was designed to provide you with fun and meaningful opportunities for guided and independent learning at your own pace and time. You will be enabled to process the contents of the learning resource while being an active learner.

This module has the following parts and corresponding icons:

 ***What I Need to Know***	This will give you an idea of the skills or competencies you are expected to learn in the module.
 ***What I Know***	This part includes an activity that aims to check what you already know about the lesson to take. If you get all the answers correct (100%), you may decide to skip this module.
 ***What's In***	This is a brief drill or review to help you link the current lesson with the previous one.
 ***What's New***	In this portion, the new lesson will be introduced to you in various ways; a story, a song, a poem, a problem opener, an activity or a situation.
 ***What is It***	This section provides a brief discussion of the lesson. This aims to help you discover and understand new concepts and skills.
 ***What's More***	This comprises activities for independent practice to solidify your understanding and skills of the topic. You may check the answers to the exercises using the Answer Key at the end of the module.
 ***What I Have Learned***	This includes questions or blank sentence/paragraph to be filled in to process what you learned from the lesson.
 ***What I Can Do***	This section provides an activity which will help you transfer your new knowledge or skill into real life situations or concerns.
 ***Assessment***	This is a task which aims to evaluate your level of mastery in achieving the learning competency.
 ***Additional Activities***	In this portion, another activity will be given to you to enrich your knowledge or skill of the lesson learned.
 ***Answer Key***	This contains answers to all activities in the module.

At the end of this module you will also find:

References	This is a list of all sources used in developing this module.

The following are some reminders in using this module:

1. Use the module with care. Do not put unnecessary mark/s on any part of the module. Use a separate sheet of paper in answering the exercises.
2. Don't forget to answer *What I Know* before moving on to the other activities included in the module.
3. Read the instruction carefully before doing each task.
4. Observe honesty and integrity in doing the tasks and checking your answers.
5. Finish the task at hand before proceeding to the next.
6. Return this module to your teacher/facilitator once you are through with it.

If you encounter any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator. Always bear in mind that you are not alone.

We hope that through this material, you will experience meaningful learning and gain deep understanding of the relevant competencies. You can do it!

What I Need to Know

The set of whole numbers includes zero and the counting or natural numbers 1,2,3,4, 5 and so on.

In this lesson, you will learn how to visualize numbers up to 100 000 with emphasis on numbers 10 001 to 100 000 using illustrations, blocks or number discs.

At the end of the lesson, you should be able to:

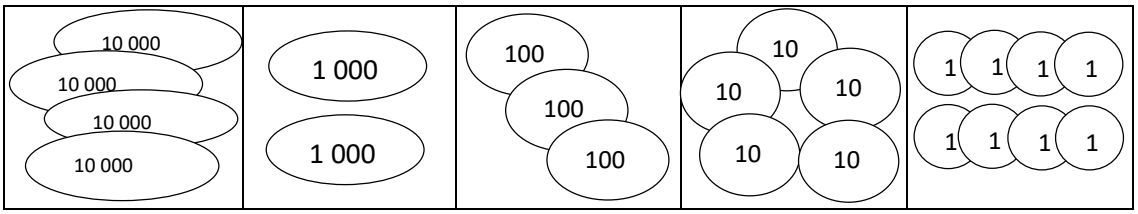
- visualize numbers up to 100 000 with emphasis on numbers 10 001 to 100 000.

What I Know

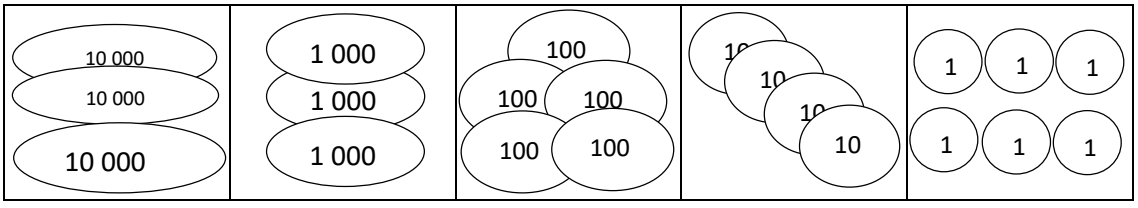
Let's begin our activity. Please answer the exercises carefully.

A. What number is represented by the number discs? Write your answer in your answer sheet.

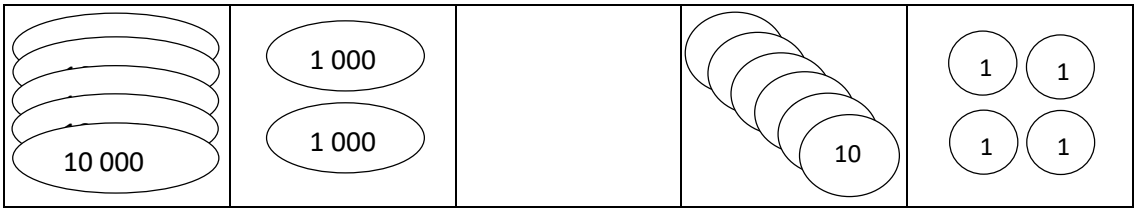
1. _____



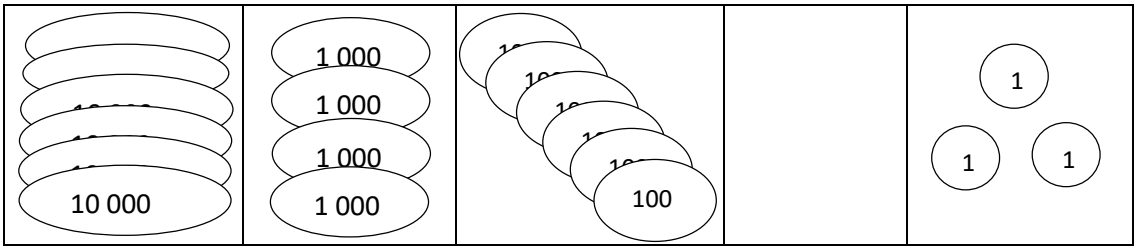
2. _____



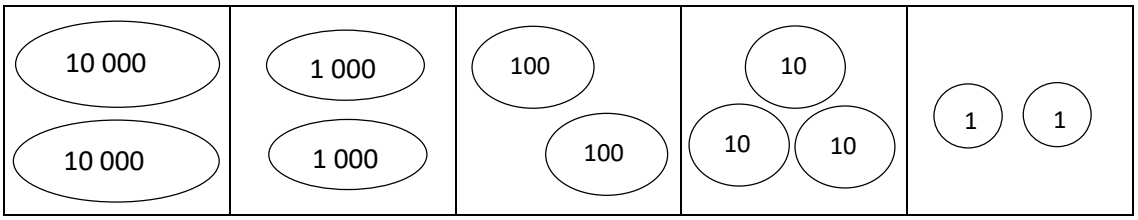
3. _____



4. _____



5. _____



B. Show the numbers below using number discs and base-10 blocks.

1-2. 5 333

C. Look for the proper representation of the numbers. Select the letter of the correct answer.

1. 8 blocks , 7 flats , 6 longs , and 5 cubes
   a. 8 765 b. 8 657 c. 8 567

2. 2 blocks , 8 flats, and 3 cubes
   a. 2 830 b. 2 083 c. 2 803

3. 7 blocks , 4 longs and 2 cubes
   a. 7 142 b. 7 042 c. 7 420

To check, go to the ***Answer Key***. If you got a score of 8 – 10, VERY GOOD! The lesson will be easy for you. If you got a score of 7 or below, study carefully the discussion and examples in this module.

What's In

Do you still remember how to read large numbers? Let's try to read the following numbers.

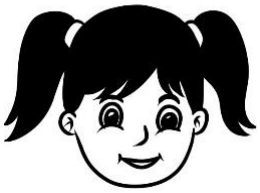
The following numbers are read as:

- 13 896 ➔ thirteen thousand, eight hundred ninety-six
- 23 544 ➔ twenty-three thousand, five hundred forty- four
- 50 680 ➔ fifty thousand, six hundred eighty
- 52 567 ➔ fifty-two thousand, five hundred sixty-seven
- 100 000 ➔ one hundred thousand

Let us also recall the place value of each digit in the number.

Hundred Thousands	**Ten Thousands**	**Thousands**	**Hundreds**	**Tens**	**Ones**
	1	3	8	9	6
	2	3	5	4	4
	5	0	6	8	0
	5	2	5	6	7
1	0	0	0	0	0

Don't forget the place value of every digit in a number because it is very important in reading and writing numbers.



Have you experienced lockdown during the COVID-19 pandemic? How did you find it?

What's New

During the COVID-19 pandemic, a city mayor bought 24 647 kilos of vegetables harvested by a group of farmers in Benguet. All households were given vegetables and they were very grateful of it.

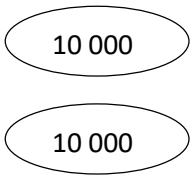
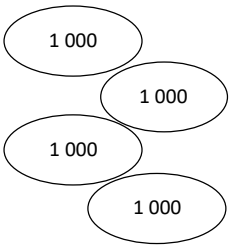
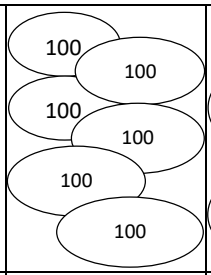
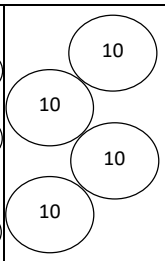
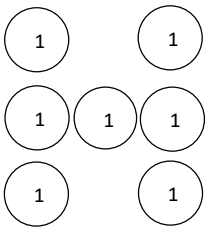
Let us see how big 24 647 is.

What is It

How can we visualize numbers up to 100 000?

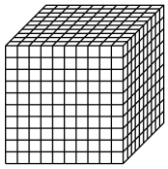
One way is by using number discs.

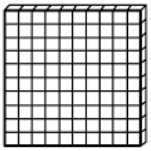
Let us see how we can use number discs to represent 24 647.

				
two 10 000s	four 1 000s	six 100s	four 10s	seven 1s
20 000	**4 000**	**600**	**40**	**7**
24 647				

Through the representations of number discs, we can say that 24 647 is a large number.

- **Another way to visualize a number is by using base-10 blocks.**

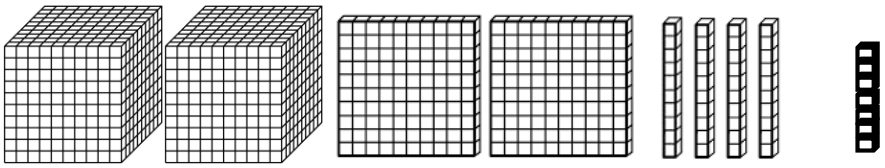

1 block = 1 000


1 flat = 100


1 long = 10


1 cube = 1

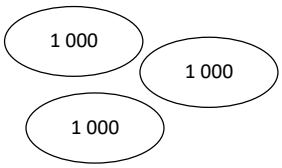
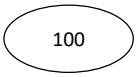
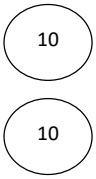
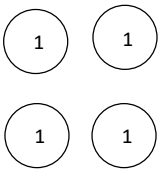
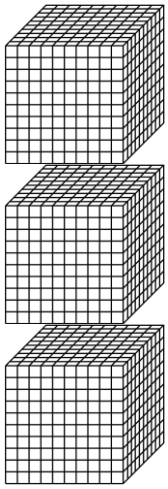
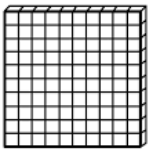
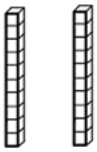
Using base-10 blocks, **2 24** can be represented as:



two 1 000s **two 100s** **four 10s** **seven 1s**

2 000 + 200 + 40 + 7 = 2 247

Let's visualize **3 124** using both the number disk and the base-10 blocks.

	three 1 000s	**one 100s**	**two 20s**	**Four 1s**
	3 000	**100**	**20**	**4**
Number Disc				
Base-10 blocks				

Did you find it easy? Just remember how numbers can be represented.

What's More

ACTIVITY 1 – Use base-10 blocks to show the numbers below.

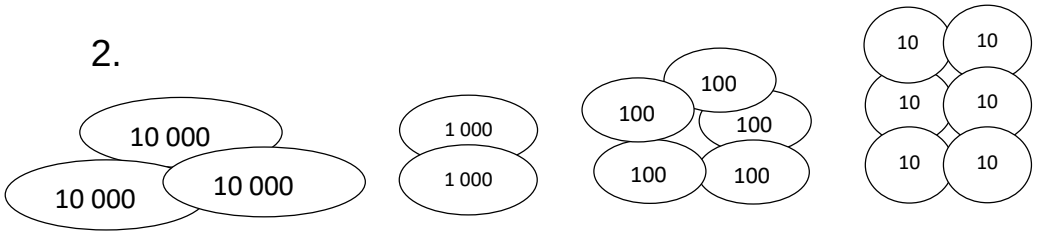
1. 1 573 2. 4 860 3. 2 417

ACTIVITY 2 - Fill in the dat 5 l give the number it represents.

1.

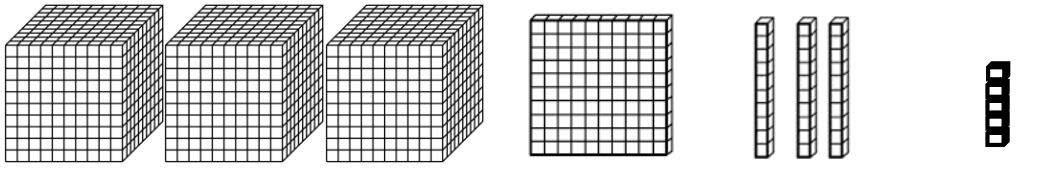
10 000 10 000 10 000 10 000	1 000 1 000 1 000	100 100 100 100 100	10 10 10 10 10 10 10 10	1 1 1 1 1 1
___ 10 000s	___ 1 000s	___ 100s	___ 10s	___ 1s
_____	_____	_____	_____	_____
_____				

2.



_____ + _____ + _____ + _____ = _____

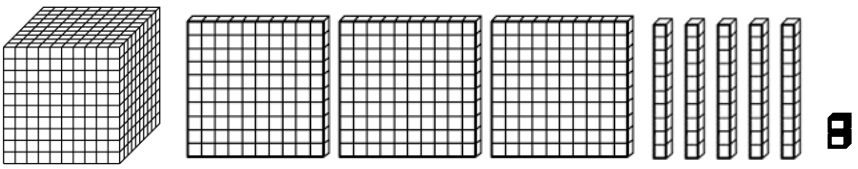
3.



_____ + _____ + _____ + ___

= _____

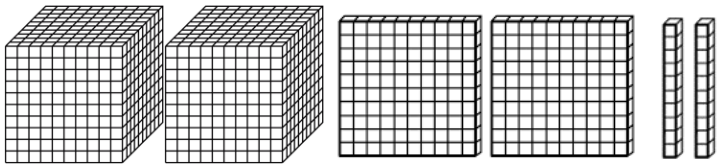
4.



_____ + _____ + _____ + ____ = _____

6

5.



_____ + _____ + ____ + ____ = _____

ACTIVITY 3 - Give the corresponding number for each statement.

1. 35 blocks, 3 flats, 1 longs, 8 cubes =
2. 49 blocks, 7 flats, 5 cubes =
3. 15 blocks, 1 flat, 7 longs =
4. 6 blocks, 9 longs, 1 cube =
5. 100 blocks =

To check, go to page 10 for the ***Answer Key***. Take time to review the discussion in the previous pages as needed.

What I Have Learned

How can we visualize numbers up to 100 000?

We can visualize numbers up to 100 000 by using representations such as number discs and base-10 blocks. We just need to know the place value of each digit in the numbers.

What I Can Do

1. Melvin has 3 pieces of 10 000 number discs, 8 pieces of 1 000 number discs, 4 pieces of 100 number discs and 7 pieces of 10 number discs. Draw a model for this situation and tell how many number discs Melvin actually has.

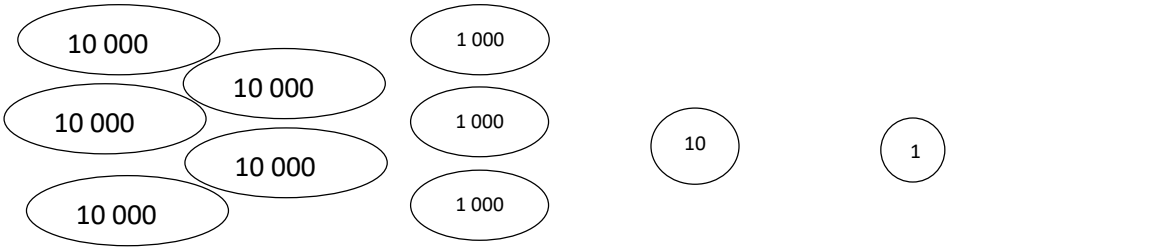
2. Karen is preparing her project in visualization of numbers. She prepared 18 blocks, 4 flats, 9 longs and 7 cubes. Give the value of each representation. What number is assigned to her?
   18 blocks = _____ 4 flats = _____ 9 longs _____
   7 cubes = _____ Number _____

3. Marcelito is assigned to represent 11 376 using number discs. How should he represent it? Illustrate it.

To check, go to the ***Answer Key***.

Assessment

A. Fill in the needed data. (5 pts)



_____ + _____ + _____ + _____ = _____

B. Show 2 305 using base-10 blocks and number discs. (2pts)

C. Give the total value of the following:
   1. 47 blocks, 9 flats, 0 long, 4 cubes
   2. 32 blocks, 5 flats, 1 long
   3. 86 blocks, 8 flats

To check, go to page 10 for the ***Answer Key.***

Additional Activities

The table shows the data of COVID-19 cases at the given period of time based on the report of the Department of Health (DOH).

Date	No. of confirmed cases	No. of recovered cases
May 20, 2020	13,221	2,932
May 13, 2020	11,618	2,251
April 20, 2020	6,459	613

1. Represent the number of confirmed cases on May 13, 2020 using number discs. For the number of recovered cases on the same date, use base-10 blocks to represent the number.

2. Think of a number between 10 001 to 100 000 that may represent a situation related to the COVID-19 pandemic.

3. In order not to be infected with coronavirus, what can you do as a member of your community?

To check, go to page 10 for the ***Answer Key***. Take time to review the discussion in the previous pages as needed.

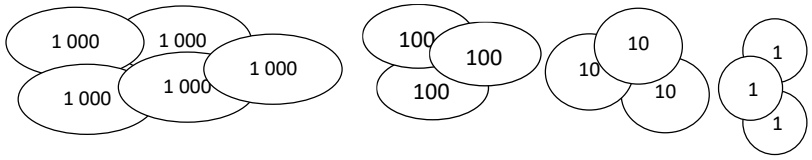
Answer Key

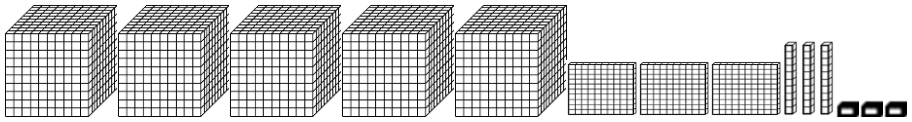
WHAT I KNOW

A.
1. **42 358**
2. **33 546**
3. **52 064**
4. **64 603**
5. **22 232**

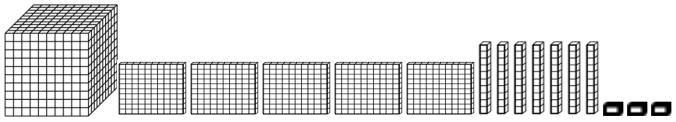
B. 5 333

C. 1. **a**
2. **c**
3. **b**

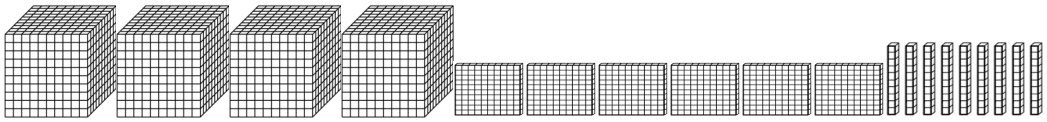




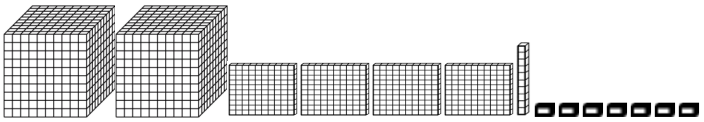
WHAT's MORE **Activity 1** **1. 1 573**



WHAT's MORE **Activity 1** **2. 4 690**



WHAT's MORE **Activity 1** **3. 2 417**



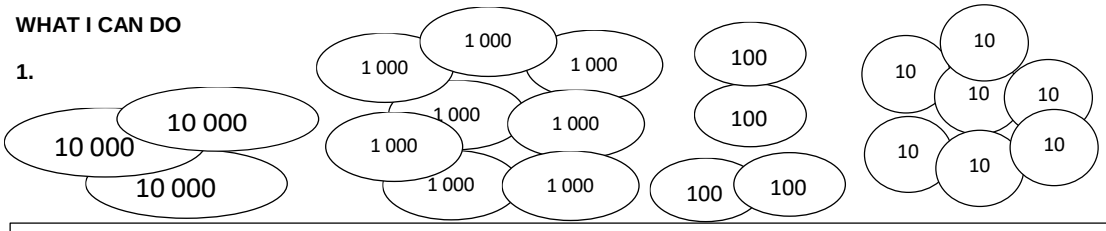
Activity 2

1. **four 1000s, three 1000s, five 100s, eight 10s, six 1s**
   40 000 + 3 000 + 500 + 80 + 6 = 43 586
2. **30 000 + 2 000 + 500 + 60 = 32 560**
3. **3 000 + 100 + 30 + 5 = 3 135**
4. **1 000 + 300 + 50 + 2 = 1 352**
5. **2 000 + 200 + 20 + 4 = 2 224**

Activity 3 **1. 35 318** **2. 49 705** **3. 15 170** **4. 6 901** **5. 100 000**

WHAT I CAN DO

1.



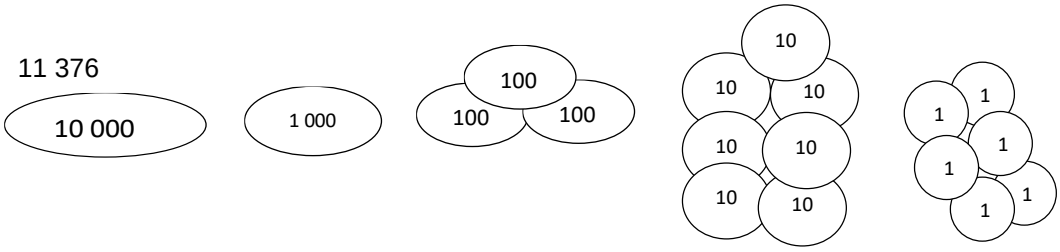
three 10 000s **eight 1 000s** **four 100s** **seven 10s** **= 38 470**

Melvin has 22 discs in all.

10

2. 18 blocks = 18,000 4 flats =400 9 longs = 90 7 cubes = 7
Number = 18 497

3. 11 376

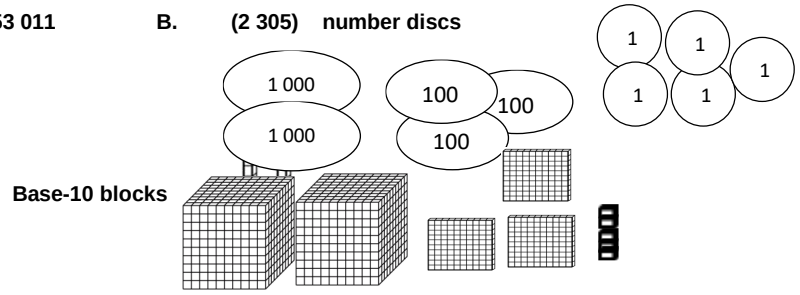


ASSESSMENT

A. 50 000 + 3 000 + 10 + 1 = 53 011

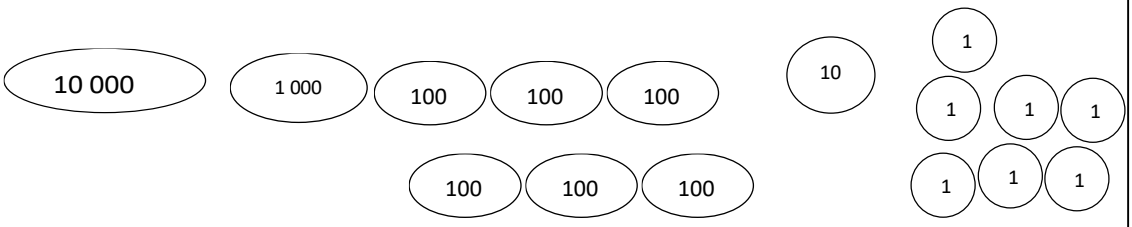
B. (2 305) number discs

C.
1. 47 904
2. 32 510
3. 86 800

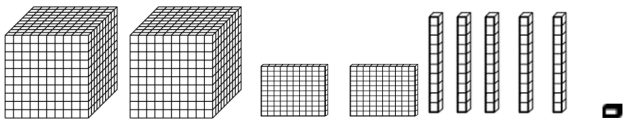


ADDITIONAL ACTIVITY

1. Confirmed cases - 11 618



2. Recovered - 2 251



2. Sample situation: 17 485 food packs were distributed to Barangay San Carlos during the lockdown.

3. In order not to be infected with coronavirus, I will stay home and wash my hands regularly.

References

K to 12 Mathematics Curriculum Guide, August 2016

https://www.youtube.com/watch?v=MetiOPFFxcc

For inquiries or feedback, please write or call:

Department of Education - Bureau of Learning Resources (DepEd-BLR)

Ground Floor, Bonifacio Bldg., DepEd Complex
Meralco Avenue, Pasig City, Philippines 1600

Telefax: (632) 8634-1072; 8634-1054; 8631-4985

Email Address: blr.lrqad@deped.gov.ph * blr.lrpd@deped.gov.ph