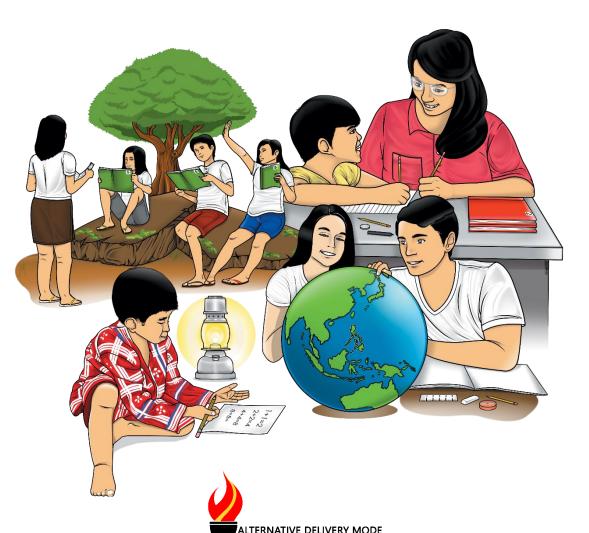




# **Mathematics**

Quarter 1 – Module 4: Rounding Numbers to the Nearest Thousands and Ten Thousands



CONDITION OF SALL

#### Mathematics - Grade 4 Alternative Delivery Mode

# Quarter 1 - Module 4: Rounding Numbers to the Nearest Thousands and Ten Thousands

First Edition, 2020

**Republic Act 8293, section 176** states that: No copyright shall subsist in any work of the Government of the Philippines. However, prior approval of the government agency or office wherein the work is created shall be necessary for exploitation of such work for profit. Such agency or office may, among other things, impose as a condition the payment of royalties.

Borrowed materials (i.e., songs, stories, poems, pictures, photos, brand names, trademarks, etc.) included in this module are owned by their respective copyright holders. Every effort has been exerted to locate and seek permission to use these materials from their respective copyright owners. The publisher and authors do not represent nor claim ownership over them.

Published by the Department of Education Secretary: Leonor Magtolis Briones Undersecretary: Diosdado M. San Antonio

#### **Development Team of the Module**

Writer: Ireneo D. Dechavez
Editor: Elena D. Hubilla

Reviewer: Annavi M. Maravilla 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 EPS In Charge of Math: Loyd H. Botor Regional ADM Coordinator: Ma. Leilani R. Lorico

CID Chief: Monserat D. Guemo

Division EPS In Charge of LRMS: Florena M. Deuna

Printed in the Philippines by \_\_\_\_\_

#### **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

# **Mathematics**

# Quarter 1 – Module 4: Rounding Numbers to the Nearest Thousands and Ten Thousands



#### **Introductory Message**

For the facilitator:

Welcome to Mathematics Grade 4 Alternative Delivery Mode (ADM) Module on Rounding Numbers to the Nearest Thousands and Ten Thousands!

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 Rounding Numbers to the Nearest Thousands and Ten Thousands!

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:

This module has the following parts and corresponding leons.				
6	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.		
(F)	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.		
A BC	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.		
20	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.		
<b>O</b>	Additional Activities	In this portion, another activity will be given to you		

learned.

module.

Answer Key

to enrich your knowledge or skill of the lesson

This contains answers to all activities in the

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!

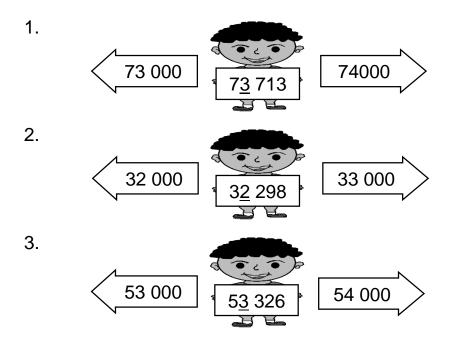


Good day learner! You have learned from the previous module how to compare and order numbers up to hundred thousand. This module is about rounding numbers. Rounding numbers is helpful in estimating distance for travel, time needed in doing tasks, things in large amounts, and also in budgeting money. I know you will enjoy this module.

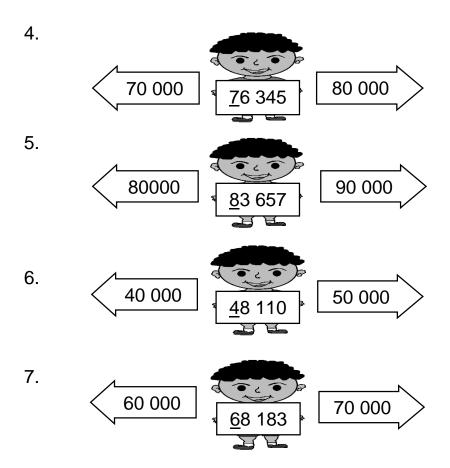
After going through this module, you are expected to round numbers to the nearest thousands and ten thousands.



Round Jayson's numbers to the nearest *thousands* and copy the correct number from the arrow.



This time, round his numbers to the nearest *ten thousands* and then copy the correct number from the arrow.



Solve the following problems.

- 8. In the three barangays of Sorsogon City, 21 897 families received relief goods. About how many thousands of families received the relief goods?
- 9. Ruden always saves money in a bank. For two years, he already saved ₱28,760.00. To the nearest ten thousands, about how much money has he already saved in the bank?
- 10. Food Jobs Eatery delivered 35 632 food packs to their customers. About how many thousands of food packs were delivered to their customers?

Are you done answering?

If yes, time to check. Please go to page 12 for the *Answer Key*.



Do you remember how to round numbers to the nearest tens and hundreds?

Below are some examples.

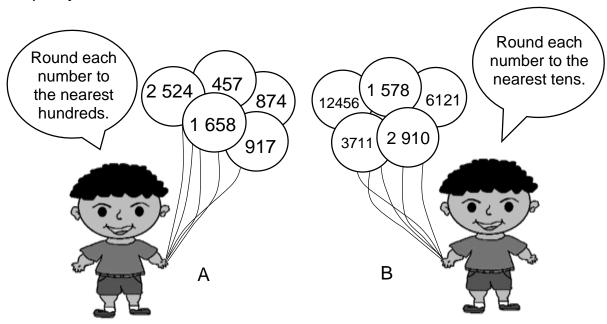
#### Rounding numbers to the nearest tens



## Rounding numbers to the nearest hundreds



Help Jayson round each number on the balloons.



Are you done answering?

If yes, time to check. Please go to page 12 for the *Answer Key*.



Do you help your parents? In what way do you help them?

#### Read the problem.

During weekends, Jayson helps his family in their *Balloons* and *Party Needs Store*. He counts and checks the inflated balloons based on the order of the customer before the delivery. At the end of the week, the store delivered 15 678 balloons. About how many thousand balloons were delivered?



Answer the given problem.

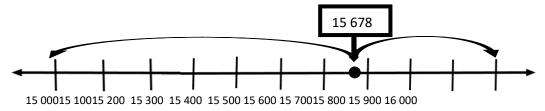


Let us see if we have the same answer. You can answer the question by rounding 15 678 to the *nearest thousands*.

What do we mean by rounding?

Rounding is the process of finding the nearest value to a certain number.

Let us study the number line below.

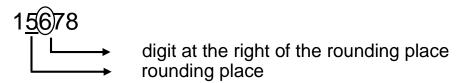


To which number is 15 678 closer, 15 000 or 16 000?

Since 15 678 is closer to 16 000, we can say that 15 678 becomes 16 000 when rounded to the nearest thousands. Hence, about 16 000 balloons were delivered at the end of the week.

### We can also round off numbers using the following steps:

- Identify the digit in the rounding place.
   This is called the rounding digit.
- 2. Identify the digit to the right of the rounding place. 15678
  - 2.1 If the digit to the right of the rounding place is less than 5 (0, 1, 2, 3 or 4), round the number down by leaving the rounding digit the same. Then, change all digits to the right of the rounding digit to zero.
  - 2.2 If the digit to the right of the rounding place is 5 or greater than 5 (6, 7, 8 or 9), round the number *up* by adding one to the rounding digit. Then, change all digits to the right of the rounding digit to zero.



## Let us go over again,

- ✓ The underlined digit 5 is the digit at the rounding place.
- ✓ 6 is the digit at the right of the rounding place.
- ✓ Since 6 belongs to 5-9 group of numbers (5 or greater than 5), add one to the digit at the rounding place (add 1 to 5).

✓ Then change all the digit at the right of the rounding place value to zero.

6 000

15 678 — → 16 000

✓ Therefore, 16 678 when rounded to the nearest thousands is **16 000** 

Answer: About 16 000 balloons were delivered at the end of the week.

Let's study these examples.

Number	Rounded to the nearest		
Number	Thousands	Ten Thousands	
93 856	94 000	90 000	
36 410	36 000	40 000	
20 917	21 000	20 000	
42 739	43 000	40 000	
81 357	81 000	80 000	

Now, you already learned how to round numbers to the nearest thousands and ten thousands. This time you are now ready for the activities. LET'S GO!



# What's More

# **Activity 1**

Round each number to the nearest place value indicated.

Number	Rounded to the nearest		
Number	Thousands	Ten Thousands	
1-2. 38 850			
3-4. 42 098			
5-6. 59 319			
9-8 87 274			

- 9. The Department of Education released a list of 3 250 approved supplementary learning resources in 2019 (DO No. 35, s. 2019). About how many thousands of supplementary learning resources do schools can choose to buy?
- 10. The Langwika sewers were able to produce 28 614 cloth face masks for frontliners in Laguna. What is 28 614 if rounded off to the nearest ten thousands?

Are you done answering?

If yes, time to check. Please go to page 12 for the *Answer Key*.

#### Assessment 1

Answer the following using the rules of rounding numbers.

- 1. If the school has 4 768 learners last school year, about how many enrollees do we expect from the learners last school year?
- 2. The COVID-19 cases in the country reached 9 223 on May 3, 2020 according to Department of Health (https://www.doh.gov.ph/covid19tracker).How do you give the approximate number of COVID-19 cases in the nearest thousands?
- 3. How do you estimate the amount in nearest ten thousands of the ₱125 870 donations that a certain barangay received?
- 4. If ₱61 753 worth of canned goods were donated in a certain city, how do you estimate the amount in the nearest ten thousands?
- 5. If 198 204 households in a province that followed the Enhanced Community Quarantine guidelines will be given recognition for their cooperation, around how many hundred thousand households are going to be recognized for their cooperation?

Are you done answering?

If yes, time to check. Please go to page 12 for the *Answer Key*.

## **Activity 2**

Round each number to the place value of the underlined digit.

1. 3<u>5</u> 982 \_\_\_\_\_

2. <u>8</u>2 562 \_\_\_\_\_

3. 87 567 \_\_\_\_\_

4. <u>3</u>4 673 \_\_\_\_\_

5. 6<u>7</u> 436 \_\_\_\_\_

Are you done answering?

If yes, time to check. Please go to page 12 for the *Answer Key*.

#### **Assessment 2**

A. Choose the arrow of the correct answer when each number is rounded to its underlined digit.

1. 2<u>4</u> 782

**4** 24 000

**1** 25 000

2. <u>5</u>1 920

**\$** 50 000

**1** 60 000

3. 4<u>7</u> 519

**47** 000

**48** 000

4. 8<u>2</u> 812

**♣** 82 000

**1** 83 000

5. <u>7</u>9 145

**4** 70 000

**1** 80 000

Are you done answering?

If yes, time to check. Please go to page 12 for the *Answer Key*.



# What I Have Learned

How do you round numbers to the nearest thousands and ten thousands?

To round numbers to the nearest thousands and ten thousands:

- 1. Identify the rounding place and the digit to the right of the rounding place.
- 2. If the digit at the right of the rounding place is from 0-4, round down the digit at the rounding place or it will remain the same.
- 3. If the digit at the right of the rounding place is from 5-9, round up the digit at the rounding place or add 1 to the digit of the rounding place.



### What I Can Do

Read the situation and complete the table below.

The Schools District of San Marcelino made a list of their district enrolment from school year 2016-2017 to school year 2020-2021.

2016 - 2017 : 19 427 2018 - 2019 : 28 327 2019 - 2020 : 33 528

2020 - 2021 : 32 879

Copy and round off to the nearest thousands and ten thousands the school population for each school year.

School Year	School Population	Thousands	Ten Thousands
2016 – 2017			
2017 – 2018			
2018 – 2019			
2019 – 2020			
2020–2021			

Are you done answering? If yes, time to check. Please go to page 12 for the Answer Key.



	Assessment
A.	Round each number to the nearest thousands.
	1. 37 823 2. 98 528 3. 43 106
4.	Sorsogon City received 24 142 kilos of rice donations from private individuals. About how many thousand kilos of rice were donated to the city?
5.	For one year, the district of Bacon in Sorsogon City planted 78 639 mahogany seedlings. Estimate, in thousands, the mahogany seedlings planted.
В.	Round each number to the nearest ten thousands.
	6. 67 345 7. 32 649 8. 94 205
9.	The Mabini National High School has a total of 16592 volunteers for

- r Brigada Eskwela. Round 16 592 to the nearest ten thousands.
- 10. There are 72 671 boxes of sardines to be distributed in a certain province. What is 72 671 if rounded off to the nearest ten thousands?

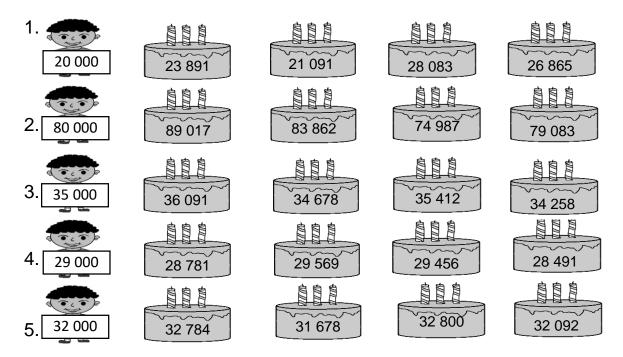
Are you done answering?

If yes, time to check. Please go to page 12 for the *Answer Key*.



# **Additional Activities**

A. Choose two numbered cakes that can be rounded to the given numbers.



- B. Answer the following questions.
  - 6. What is the biggest number that rounds to 80 000 when rounded off to the nearest ten thousands?
  - 7. What is the smallest number that rounds to 45 000 when rounded off to the nearest thousands?
  - 8-9. List two possible numbers that can be rounded off to 31 000.
  - 10. How many numbers can be rounded off to 20 000?

Are you done answering?

If yes, time to check. Please go to page 12 for the *Answer Key*.

CONGRATULATIONS! You are doing very well.

See you in the next module.



10. 70 000 000 67.3 9. 20 000 4, 24 000 8.90 000 3, 43 000 7:30 000 2.99 000 B. 6. 70 000 000 8E.1 A ASSESSMENT (page 10)

000 Z9 'G

Ţ.ĉ

10.10000 8-8 Any numbers from 30 500 to 31 489 7: 44 500 B. 6.84999 5, 32 092 ; 31 678 4, 28 781 ; 29 456 3, 34 678 ; 35 412 2, 83 862 ; 79 083 1.23 891; 21 091 (ht eged) SEITIVITOA JANOITIGGA

30 000	33 000	32 879	2020-2021
30 000	34 000	33 528	2018-2020
30 000	28 000	728 327	2018-2019
30 000	27 000	26 930	2017-2018
S0 000	19 000	18 427	2016-2017
spuesnoul	spuesnouj	noitaluqo9	Year
Ten	spacsnoq1	School	School
(e afied) og NYO LIVUM			

(Reage (Page 4) (Reage 4)

Ţ. <del>,</del>	000 0	
3.1	000 0	3 8
↓-1	000 9	
S tnems		Activity 2
		4. 60 C
		3. 130
		2. 900
	00	J. 900
	l frient 1	neseseA
	(	10.30 000
		9.3 000
000 06	000 28	472 78
000 09	000 69	618 89
40 000	45 000	45 088
40 000	38 000	38 820
n <sub>9</sub> T sbnssuodT	spuesnoul	
Number Rounded to the nearest		
l ytivitaA.		
(8 - 8 ageq) 39OM S'TAHW		

3 140 006 2810 006 6 120 1 L00 1 280 009 B. 12460 008 S. A. (E 9g6q) NI 2'TAHW

10.36 000 6. 74 000 4. 70 000 9.30000 8. 22 000 3" 20 000 7. 53 000 2. 80 000 6, 32 000 1. 80 000 (S bns 1 saged) WOVN ITAHW

# References

K to 12 Mathematics Curriculum Guide, August 2016.

Tabilang, A. et. al. (2015). *Mathematics: Learner's Material*, Pasig City: Lexicon Press.

### 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

 $\label{lem:linear_energy} \mbox{Email Address: $\underline{\mbox{blr.lrqad@deped.gov.ph}}^*$ blr.lrpd@deped.gov.ph}$