



Republic of the Philippines

Department of Education

Regional Office IX, Zamboanga Peninsula



5



MATHEMATICS

2ND QUARTER – Module 1: DECIMALS



| N | ame | of | Lea | rnei | r: |
|----|-----|----|-----|------|----|
| Τ. | ann | UL | Lla | | |

Grade & Section:

Name of School:

Mathematics- Grade 5
Alternative Delivery Mode
Quarter 2 - Module 1: Decimals

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 royalty.

Borrowed materials (i.e., songs, stories, poems, pictures, photos, brand names, trademarks, etc.) included in this book 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: Aigen Nhova S. Mejorada

Editor: Agustina P. Magalso Reviewer: Ismael K. Yusoph

Management Team: SDS: Ma. Liza R. Tabilon

ASDS: Judith V. Romaguera

OIC-ASDS: Ma. Judelyn J. Ramos OIC-ASDS: Armando P. Gumapon

CID Chief: Lilia E. Abello

LR: Evelyn C. Labad

PSDS: Reynaldo S. Alacala Principal: Amelita G. Sappal

Printed in the Philippines by

Department of Education - Region IX, Zamboanag Peninsula

Office Address: Tiguma, Airport Road, Pagadian City

Telefax:

E-mail Address:



What I Need to Know

After surpassingly doing the activities of this module, you are expected to give the place value and the value of a digit of a given decimal number through ten thousandths, read and write decimal numbers through ten thousandths, round decimal numbers to the nearest hundredths and thousandths. (M5NS-IIa-101.2, M5NS-IIa-102.2, M5NS-IIa-103.2)

The goal in Mathematics education is to help and provide you learning experiences that will encourage you to expect and achieve more in this area. The activities of this module are written to further improve your critical thinking, recognize and represent decimals in various forms and context. These acquired skills would soon make a difference in your learning which is essential in your development towards becoming young responsible citizens.

So, find time to study this module and let's build a responsible mathematical community! amidst COVID-19 pandemic.

We are with you every step of the way. Good luck, stay safe and God bless.

Lesson

Giving of the Place Value and the Value of a Digit of a Given Decimal Numbers Through Ten Thousandths, Reading and Writing Decimal Numbers Through Ten Thousandths and Rounding Decimal Numbers to the Nearest Hundredths and Thousandths



What's In

Give the place value and value of the underlined digit?

| Whole Numbers | Place Value | Value |
|---------------|-------------|-------|
| 5 <u>3</u> 8 | | |
| <u>6</u> 38 | | |
| 0 <u>6</u> 4 | | |
| <u>8</u> 8 | | |
| 58 <u>3</u> | | |

Romeo takes good care of his body. He eats the right kind of food and does exercise regularly to maintain proper weight. Romeo weighs 64.25 kg last month. He gains 2.005 kg this month. So his present weight now is 66.255 kg.

| What is the place value of 2 in the present weight of Romeo? | |
|--|--|
| What is the value of 2 in Romeo's weight last month? | |
| Let's look back: | |

Last time, you have learned reading and writing decimals through ten thousandths. Using your previous learning, you give the value of the underlined digit in the given decimal below. The first number is done for you.

| Decimal | Value |
|---------|-------|
| 0.004 | |
| 0.688 | |
| 0.0012 | |
| 12.6 | |
| 3.2567 | |



What's New

Activity 1

The Science class was given a micrometer to measure the thickness of different leaves. The chart below shows the data recorded. What does 5 in each number mean?

| Leaf | Thickness |
|---------------|-----------|
| Upo leaf | 0.5137 cm |
| Gumamela leaf | 0.0539 cm |
| Talisay leaf | 0.3158 cm |

To answer the question, let us use the place value chart below.

| Whole Numbers | | | Decimals | | | | | | |
|------------------|------|------|----------|--|------|-------|-------------|--|--|
| Place | Tens | Ones | Decimal | Decimal Tenths Hundredth Thousandths Ten | | | | | |
| Value | | | Point | | S | | Thousandths | | |
| | 10 | 1 | • | 1 | _1_ | 1 | 1 | | |
| | | | | 10 | 100 | 1000 | 10 000 | | |
| Value | 50 | 3 | • | 0.5 | 0.09 | 0.006 | 0.0007 | | |
| | | 0 | • | 5 | 1 | 3 | 7 | | |
| | | 0 | • | 0 | 5 | 3 | 9 | | |
| | | | • | 3 | 1 | 5 | 8 | | |

Activity 2

What are the given numbers in the situation above of activity 2? How do you read and write decimal numbers?

This part will lead you discover how to round decimals to the nearest hundredths and thousandths.

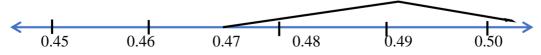
Activity 3

Let's start with this!

Aeron and Joshtin started jogging at the same time. Aeron finished in 0.4 hour while Josh finished in 0.48. Who finished first?

Study the number line below. Round 0.48 to the nearest tenths. Look at the hundredths digit.

Is it nearest to 0.04 or to 0.5 on the number line?



0.48 is nearer to 0.5 than to 0.4. So, 0.48 is rounded to 0.5

Who finished first?



What Is It

Give the place value and value of the underlined digit.

a. 0.<u>3</u>158

| ten | ones | | tenths | hundredths | thousandths | Ten thousandths |
|-----|------|---|--------|------------|-------------|-----------------|
| | 0 | • | 3 | 1 | 5 | 8 |

Place Value: tenths

Value : 0.3

Let us observe:

Decimals are just another way of writing fractions whose denominators are power of ten and the proper way to read them is the same as reading the corresponding fractions

In the examples "zero (0)" and the decimal point are not read nor written in words anymore.

Take a look at this!

Let us try to round 15.2564 to the nearest hundredths.

Follow these steps:

Step 1: Identify the rounding place

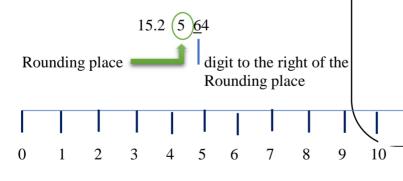
rounding place.

15.2 <u>6</u>4

Rounding place

Step 2:

Look at the digit to the right of the



Topic Highlight

To round off decimals, follow the same procedure as in rounding off whole numbers. Always consider the number at the right of the digit you are rounding off.

- a.) If the number is more than or equal to 5, add one(1) to the digit before it and drop all the digits to the right.
- b.) If the number is less than five(5), drop all the numbers and write the number of zeros equivalent to the number of dropped digits.

The number line shows that 6 is greater than 5.

Step 3: Drop all digits to the right of the rounding place.

5 is our reference point for Comparison because it is midway between 0 and 10

15.2564 rounded to the nearest hundredths is <u>15.26</u> Now, let's round 15.2564 to the nearest thousandths.



Digit to the right of the rounding place

Rounding place

- 3 is lesser than 5, do not change the digit in the rounding place.
- 15.2564 rounded to the nearest thousandths is **15.256**.



Give the correct answer.

| _1. Give the place value of the underlined digit in 0.45 |
|---|
| 2. Write the number word of 0.036 |
| 3. Write eight and two thousand five hundred forty ten thousandths in figure. |
| 4. Round 1.299 to the nearest hundredths |
| 5 Round 1 3421 to the nearest thousandths |



What I Have Learned

Decimals are just another way of writing fractions whose denominators are power of ten and the proper way to read them is the same as reading the corresponding fractions

In the examples "zero (0)" and the decimal point are not read nor written in words anymore.

To round off decimals, follow the same procedure as in rounding off whole numbers.

Always consider the number at the right of the digit you are rounding off. a. If the number is more than or equal to 5, add one(1) to the digit before it and drop all the digits to the right.

b. If the number is less than five (5), drop all the numbers and retain



8.

Directions: Read and answer.

| | 1. A carpenter cuts a p 12.445. In which nu | | | | The needed length is |
|-------|--|-----------------------|-----------------|---------------|----------------------|
| | 2. Using a ruler, Jean f in this number? | | eaf is 0.253 cm | thick. Wh | at is the value of 2 |
| | 3. Write the decimal num 7634.0023 | | | | |
| | 4. Fifty- eight of 100 stu decimal for the part of | | | | |
| | 5.) What is three hundre thousandths round | = | | | = |
| Direc | Assess tion: Box the letter of the c | | | | |
| Direc | tion. Box the letter of the t | Correct ariswer. | | | |
| 1. | Give the place value of A. thousandths | | | enths | D. ones |
| 2. | What is the place value | e of the digit 8 in 9 | 908.176 | | |
| 3. | A. thousandths Write six and forty-eight | | | enths | D. ones |
| 0. | A. 6.48 | B. 6.048 | • | | D. 6.408 |
| 4. | Write the decimal form | of $\frac{4}{1000}$ | | | |
| 5. | A. 0.004 Round 16.975 to the ne | B. 000.4 | | D. 0.0 | 0004 |
| J. | | | | 6.97 | |
| 6. | Choose the number tha A. 10.859 | | | 0.050 | |
| 7. | Which of the following of | | | 0.856 ast? | |
| - | A. 3.756 | 37.56 | 375.6 | 0.375 | 6 |
| | B. 0.2468 | 0.2486 | 0.2648 | 0.284 | |
| | C. 11.010 | 11.011 | 11.0110 | 1.110 | 1 |
| | D. 2.86 | 2.75 | 2.68 | 2.56 | |

The Hong Kong dollar is equivalent to 3.3616 Philippine pesos. Which number

words describes 3.3616 correctly?

- A. Three and three thousand six hundred sixteen ten thousandths
- B. Three and three thousand six hundred sixteen thousandths
- C. Three point three thousand six hundred sixteen thousandths
- D. Three point three thousand six hundred sixteen ten thousandths
- 9. The Salug Scouters of Salug Central School and SPED Center had hiked eight and twenty- six thousandths kilometers during the 2019 Division Jamboree held at Dipolog City. Write this as decimal number.

A. 8.260

B. 8.026

C. 8.0026

D. 8.2600

10. The total ground area of Salug Central School and SPED Center is 7142.0243 sq. m. Round the land area to the nearest thousandths.

A. 7142.2000

B. 7142.024

C. 7142.0240 D. 7142.0200



```
J(01
                                              \mathfrak{I}(8)
                                                           \mathbf{Q}(\mathbf{7})
                                                                       D (9
                                  Q(6
                            A (4
           ) (c
                                              3)(£
                                                               \mathcal{O}(2)
                                                                              I) D
                                                                              Post Test:
                                                                            £$9.24£ ($
                                                                                 4)0.45
         3) Seven thousand six hundred thirty-four and twenty-three ten thousandths
                                                                                 2) tenths
                                                            1) 12.4045 is the lesser value
                                                                        What I Can Do
                                                                            .qu banor
         Rule 2: Look at the digit at it's right. If it is less than 5 round down. If it is more,
                                              Rule 1:Determine the rounding place
                                          7.58 as Seven and fifty-eight hundredths
            2500.0
                          7000.0
                                           5940.0
                                                                             0.4283
                                                            9275.0
      What I Have Learned – the numbers divisible by 2, 5 and 10 are the following:
                                                                              1.342
                                                                                     .ς
                                                                                 E.I
                                                                                      .4
                                                                             8.2540
                                                                                      .ε
                                                             Thirty-six thousandths
                                                                        1. Hundredths
                                                                              What's More
                                        3. Tenths
                                                       2. Thousandths
                                                                           1. Hundredths
                                                                       Let's do this!
                                                                               Mhat is it
                                                                              Aeron
                                                                          Activity 3
them is the same as reading the corresponding fractions which they are represent.
From left to write with the help of a place value chart and the proper way to read
                         The given numbers are 64.25 \text{ kg}, 2.005 \text{ kg} and 66.255 \text{kg}.
                                                                                 Activity 2
                                                                            What's New
                                                         900.0
                                                                      9.0
                                                                              100.0
                                                                                        89.0
                                                                      Activity 3
                                                                      2.0 (2
                                                                                       2.0 (1
                                                                      Activity 2
            £-san0
                          Tens-80
                                            09-sn<sub>9</sub>T
                                                              Hundreds-600
                                                                                    Tens-30
                                                                       Activity 1
                                                                                  What's In
```

References:

Mathematics 5 2st Quarter Teacher's Guide and Learner's Material

Evangelista, Maria Pilita and Ma. Lyn T. Quimboy. iMath 5: K to 12 Curriculum Series. iBook Publishing, Inc. 2017

Ledesma, Lynnie B. and Juanito D. Yusingco. Today's Math 6. 927 Quezon Avenue, Quezon City: Phoenix Publishing House, 1995.

Fisico, Misael Jose S. et. al. 21st Century Mathematics 6. 927 Quezon Avenue, Quezon City: Phoenix Publishing House, 1999.

Burgos, Jaime R. et.al. 21st Century MATHletes. 1253 G. Araneta Avenue, Quezon City: Vibal Group, Inc., 2016.

Lesson Guide in Elementary Mathematics Grade 5 Reprint 2012

Math Beyond Excellence Grade 5 by: Lany A. Osano, MAT, MAED

Grade School MATHEMATICS Textbook by: Ana O. Abinoja; Adoracion M. Acuna

I AM A FILIPINO by Carlos P. Romulo

I am a Filipino – inheritor of a glorious past, hostage to the uncertain future. As such, I must prove equal to a two-fold task – the task of meeting my responsibility to the past, and the task of performing my obligation to the future.

I am sprung from a hardy race — child many generations removed of ancient Malayan pioneers. Across the centuries, the memory comes rushing back to me: of brown-skinned men putting out to sea in ships that were as frail as their hearts were stout. Over the sea I see them come, borne upon the billowing wave and the whistling wind, carried upon the mighty swell of hope — hope in the free abundance of the new land that was to be their home and their children's forever.

This is the land they sought and found. Every inch of shore that their eyes first set upon, every hill and mountain that beckoned to them with a green and purple invitation, every mile of rolling plain that their view encompassed, every river and lake that promised a plentiful living and the fruitfulness of commerce, is a hollowed spot to me.

By the strength of their hearts and hands, by every right of law, human and divine, this land and all the appurtenances thereof – the black and fertile soil, the seas and lakes and rivers teeming with fish, the forests with their inexhaustible wealth in wild and timber, the mountains with their bowels swollen with minerals – the whole of this rich and happy land has been for centuries without number, the land of my fathers. This land I received in trust from them, and in trust will pass it to my children, and so on until the world is no more.

I am a Filipino. In my blood runs the immortal seed of heroes – seed that flowered down the centuries in deeds of courage and defiance. In my veins yet pulses the same hot blood that sent Lapulapu to battle against the alien foe, that drove Diego Silang and Dagohoy into rebellion against the foreign oppressor.

That seed is immortal. It is the self-same seed that flowered in the heart of Jose Rizal that morning in Bagumbayan when a volley of shots put an end to all that was mortal of him and made his spirit deathless forever; the same that flowered in the hearts of Bonifacio in Balintawak, of Gregorio del Pilar at Tirad Pass, of Antonio Luna at Calumpit, that bloomed in flowers of frustration in the sad heart of Emilio Aguinaldo at Palanan, and yet burst forth royally again in the proud heart of Manuel L. Quezon when he stood at last on the threshold of ancient Malacanang Palace, in the symbolic act of possession and racial vindication. The seed I bear within me is an immortal seed.

It is the mark of my manhood, the symbol of my dignity as a human being. Like the seeds that were once buried in the tomb of Tutankhamen many thousands of years ago, it shall grow and flower and bear fruit again. It is the insigne of my race, and my generation is but a stage in the unending search of my people for freedom and happiness.

I am a Filipino, child of the marriage of the East and the West. The East, with its languor and mysticism, its passivity and endurance, was my mother, and my sire was the West that came thundering across the seas with the Cross and Sword and the Machine. I am of the East, an eager participant in its struggles for liberation from the imperialist yoke. But I know also that the East must awake from its centuried sleep, shake off the lethargy that has bound its limbs, and start moving where destiny awaits.

For I, too, am of the West, and the vigorous peoples of the West have destroyed forever the peace and quiet that once were ours. I can no longer live, a being apart from those whose world now trembles to the roar of bomb and cannon shot. For no man and no nation is an island, but a part of the main, and there is no longer any East and West - only individuals and nations making those momentous choices that are the hinges upon which history revolves. At the vanguard of progress in this part of the world I stand – a forlorn figure in the eyes of some, but not one defeated and lost. For through the thick, interlacing branches of habit and custom above me I have seen the light of the sun, and I know that it is good. I have seen the light of justice and equality and freedom, my heart has been lifted by the vision of democracy, and I shall not rest until my land and my people shall have been blessed by these, beyond the power of any man or nation to subvert or destroy.

I am a Filipino, and this is my inheritance. What pledge shall I give that I may prove worthy of my inheritance? I shall give the pledge that has come ringing down the corridors of the centuries, and it shall be compounded of the joyous cries of my Malayan forebears when first they saw the contours of this land loom before their eyes, of the battle cries that have resounded in every field of combat from Mactan to Tirad Pass, of the voices of my people when they sing:

"I am a Filipino born to freedom, and I shall not rest until freedom shall have been added unto my inheritance—for myself and my children and my children's children—forever."