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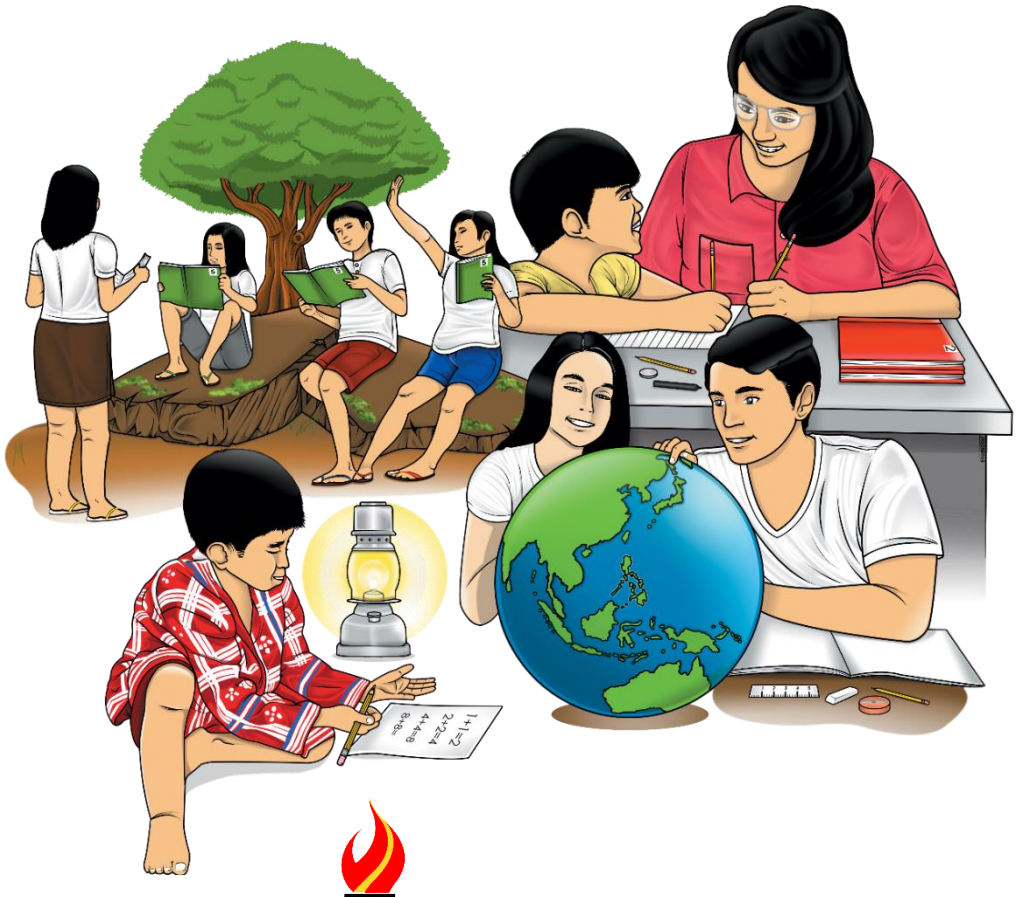
DEPARTMENT OF EDUCATION

Mathematics

Quarter 1 – Module 10:
Division of Decimals Up To 4 Decimal Places By 0.1, 0.01, And 0.001
Division of Decimals Up To 2 Decimal Places By 10, 100, And 1 000 Mentally



ALTERNATIVE DELIVERY MODE
ADM

Mathematics – Grade 6
Alternative Delivery Mode
Quarter 1 – Module 10: Dividing Decimals up to 4 Decimal Places by 0.1. 0.01, and 0.001 and Division of Decimals up to 2 Decimal Places by 10, 100, and 1 000 Mentally
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6

Mathematics

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Division of Decimals Up To 2 Decimal Places by 10, 100, and 1 000 Mentally

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Introductory Message

For the facilitator:

Welcome to the Mathematics 6 Alternative Delivery Mode (ADM) Module on Dividing Decimals up to 4 Decimal Places by 0.1. 0.01, and 0.001, and Dividing Decimals up to 2 Decimal places by 10, 100, and 1 000 Mentally!

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 6 Alternative Delivery Mode (ADM) Module on Dividing Decimals up to 4 Decimal Places by 0.1. 0.01, and 0.001 and Dividing Decimals up to 2 Decimal Places by 10, 100, and 1 000 Mentally!
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

This module was designed and written with you in mind. It is here to help you master division of decimals. The scope of this module permits it to be used in many different learning situations. The language used recognizes the diverse vocabulary level of students. The lessons are arranged to follow the standard sequence of the course. But the order in which you read them can be changed to correspond with the textbook you are now using.

The module is divided into four lessons, namely:

- Lesson 1. Division of decimals up to 4 decimal places by 0.1
- Lesson 2. Division of decimals up to 4 decimal places by 0.01
- Lesson 3. Division of decimals up to 4 decimal places by 0.001
- Lesson 4. Division of decimals up to 2 decimal places by 10, 100, and 1 000 mentally

After going through this module, you are expected to:

1. divide decimals up to 4 decimal places by 0.1;
2. divide decimals up to 4 decimal places by 0.01;
3. divide decimals up to 4 decimal places by 0.001;
4. divide decimals up to 2 decimal places by 10. 100, and 1 000 mentally

What I Know

Find for the quotient. Write your answers on your answer sheet.

1) 0.53 ÷ 0.1= **N**

2) 62.5 ÷ 0.1= **N**

3) 0.0137 ÷ 0.1= **N**

4) 0.9841 ÷ 0.1= **N**

5) 40.7 ÷ 0.1= **N**

6) 10.035 ÷ 0.1= **N**

7) 0.0052 ÷ 0.1= **N**

8) 0.9 ÷ 0.1= **N**

9) 0.0002 ÷ 0.1= **N**

10) 8.0034 ÷ 0.1= **N**

Lesson 1 Dividing decimals up to 4 decimal places by 0.1

You were exposed with many lessons involving division of decimals already. Your added ideas in those prior lessons and activities will be useful in this lesson. If you will just apply the rules well, you will find this lesson on dividing decimals up to 4 decimal places by 0.1 fun and easy.

What's In

Multiply the following. Write your answer on a sheet of paper.

1) 0.5 x 0.1 = **N**

2) 0.34 x 0.1 = **N**

3) 6.2 x 0.1 = **N**

4) 41.78 x 0.1 = **N**

5) 950.2634 x 0.1 = **N**

What's New

Study the following equations.

0.06 ÷ 0.1 = 0.6 81.4579 ÷ 0.1 = 814.579

Do you know how get the quotient?

What is It

When dividing a decimal by another decimal, remember that you need to make the divisor a whole number first. To do it, multiply your divisor which is 0.1 by 10 to make it 1, which is a whole number. Do the same with your dividend before doing the division operation.

Example 1: 0.06 ÷ 0.1 = N

Consider the following steps below:

0.1 x 10 = 1	Step 1. Multiply the divisor by 10 to make it a whole number.
0.06 x 10 = 0.6	Step 2. Multiply also the dividend by 10 because you multiply your divisor by 10.
0.6 ÷ 1 = 0.6	Step 3. Divide as in dividing whole numbers. Any number divided by 1 is the number itself.

Hence, the quotient of 0.06 divided by 0.1 is 0.6.

Example 2: 81.4579 ÷ 0.1 = N

0.1 x 10 = 1	Step 1. Multiply the divisor by 10 to make it a whole number.
81.4579 x 10 = 814.579	Step 2 Multiply also the dividend by 10 because you multiply your divisor by 10.
814.579 ÷ 1 = 814.579	Step 3. Divide as in dividing whole numbers. Any number divided by 1 is the number itself.

Hence, the quotient of 81.4579 divided by 0.1 is 814.579.

If you noticed, dividing decimal by 0.1, can also be done by moving the decimal point one place to the right of the divisor. Do the same with the dividend before dividing.

Consider the following steps below:

Example 1: 0.06 ÷ 0.1 = N

$0.1\overline{)0.06}$ $\qquad$ $1.0\overline{)0.06}$

Step 1. Make the divisor a whole number by moving the decimal point one place to the right.

$1\overline{)0.06}$ ➡ $\begin{array}{r}0.6\\1\overline{)0.06}\end{array}$

Step 2. Move also the decimal point of the dividend one place to the right.

$\begin{array}{r}0.6\\1\overline{)0.6}\end{array}$

Step 3. Divide as in whole numbers

Hence, the quotient of 0.06 divided by 0.1 is 0.6.

Example 2: 81.4579 ÷ 0.1 = N

$0.1\overline{)81.4579}$ ➡ $1\overline{)81.4579}$

Step 1. Make the divisor a whole number by moving the decimal point one place to the right.

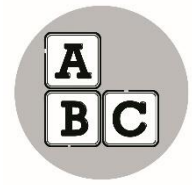
$1\overline{)81.4579}$ ➡ $1\overline{)814.579}$

Step 2. Move also the decimal point of the dividend one place to the right.

$\begin{array}{r}8145.79\\1\overline{)8145.79}\end{array}$

Step 3. Divide as in whole numbers

Hence, the quotient of 81.4579 divided by 0.1 is 814.579.



What's More

Give the quotient. Write your answers on your answer sheet.

Example: 589.67 ÷ 0.1 = 5896.7

1) 0.0003 ÷ 0.1= ☐

2) 51.379 ÷ 0.1 = ☐

3) 906.8 ÷ 0.1= ☐

4) 4.021 ÷ 0.1 = ☐

5) 0.5633 ÷ 0.1= ☐

What I Have Learned

To divide decimals up to 4 decimal places by 0.1, follow these steps:

1. Change the divisor into a whole number by multiplying it by 10. The same goes for the dividend.
2. Divide the dividend by the divisor the way you divide whole numbers.

What I Can Do

A. Complete each statement.

1) 1.15 divided by 0.1 equals _____.
2) The quotient of 0.0009 ÷ 0.1 is _____.
3) 100.3 divided by 0.1 is equal to _____.
4) If you divide 0.9374 by 0.1, the answer is _____.
5) 39.48 ÷ 0.1 is _____.

B. Solve the following problems.

6) Marvin bought a bottle of insecticide which contains 0.485 liter. The instruction says: “mix 0.1 liter per gallon of water.” How much water is needed to use all the insecticide?

7) Father has a piece of log 5.30 meters long. How many 0.1 meter pieces of log can be cut from it?

Assessment

Find each quotient. Write your answers on your answer sheet.

1) 0.85 ÷ 0.1= ☐ 2) 5.43 ÷ 0.1 = ☐

3) 8.375 ÷ 0.1= ☐ 4) 2.96 ÷ 0.1 = ☐

5) 27.69 ÷ 0.1= ☐ 6) 0.5479 ÷ 0.1 = ☐

7) 0.803 ÷ 0.1= ☐ 8) 8.6412 ÷ 0.1= ☐

9) 0.0002 ÷ 0.1= ☐ 10) 97.3 ÷ 0.1= ☐

Additional Activities

A. Find the quotient of the following mathematical expressions and write your answers on your answer sheet.

1) 0.455 ÷ 0.1 = ☐

2) 0.03137 ÷ 0.1 = ☐

3) 1.752 ÷ 0.1 = ☐

4) 29.4 ÷ 0.1 = ☐

5) 0.0003 ÷ 0.1 = ☐

B. Read and solve each problem. Write your answers on your answer sheet.

6. Marela prepared 25.6 liters of concentrated mango juice. She plans to pour it in small canister of 0.1 liter capacity. How many canisters does she need to prepare?

7) A milk factory is packaging powdered milk into packs of 0.1 kilogram. How many packs can be made out of 138 kilograms?

8) Mrs. Alvarez wants to make face masks. If each face mask measures 0.1 meter, how many face masks can she make from 34.7 meters of cloth?

9) During the sale, a bag of 1.2 kilograms of bacon is sold at low price. Anna purchased one bag and repacked it into small bags of 0.1 kilogram. How many small bags did she make?

10) Cashew nuts are packed in sachet that holds 0.1 kilogram each, and sold at ₱25.00 per pack. If Susan was able to sell 3.9 kilograms of cashew nuts, how much did she get?

Answer Key

What I Know

1.) 5.3
2.) 625
3.) 0.137
4.) 9.841
5.) 407
6.) 100.35
7.) 0.052
8.) 9
9.) 0.002
10.) 80.034

What I Can Do

1.) 11.5
2.) 0.009
3.) 1003
4.) 9.375
5.) 394.8
6.) 4.85 gallon
7.) 53 pcs

What's In

1.) 0.05
2.) 0.034
3.) 0.62
4.) 4.178
5.) 95.02634

Assessment

1.) 8.5
2.) 54.3
3.) 83.75
4.) 29.6
5.) 276.9
6.) 5.479
7.) 8.03
8.) 86.412
9.) 0.002
10.) 973

What's More

1.) 0.003
2.) 513.79
3.) 9068
4.) 40.21
5.) 5.633

Additional Activities

A. 1) 4.55
2) 0.3137
3) 17.52
4) 294
5) 0.03
B.6)256
7) 1380 packs
8) 347
9) 12
10) ₱75.00

What I Know

Find the quotient in each item. Write your answers on your answer sheet.

1. 0.256 ÷ 0.01= ☐
2. 0.036 ÷ 0.01= ☐
3. 4.9815 ÷ 0.01= ☐
4. 0.003 ÷ 0.01 = ☐
5. 56.348 ÷ 0.01 = ☐
6. 0.7 ÷ 0.01 = ☐
7. 9.46 ÷ 0.01 = ☐
8. 0.809 ÷ 0.01 = ☐
9. 0.83 ÷ 0.01 = ☐
10. 11.6 ÷ 0.01 = ☐

Lesson 2 Dividing decimals up to 4 decimal places by 0.01

Good day learners! After undergoing the activities in the previous lesson, I believe that you will find this next lesson on dividing decimals up to 4 decimal places much easier. Have a nice trip ahead.

What's In

Find the quotient. Write your answers on your answer sheet.

1) 0.21 ÷ 0.1 = ☐

2) 340.572 ÷ 0.1 = ☐

3) 0.836 ÷ 0.1 = ☐

4) 4.09 ÷ 0.1 = ☐

5) 0.005 ÷ 0.1 = ☐

What's New

Look at the following number sentences.

How will you find each quotient?

1) 0.0052 ÷ 0.01 = N

2) 6.3 ÷ 0.01 = N

What is It

Example 1: 0.0052 ÷ 0.01 = N

Consider the following steps below:

0.01 x 100 = 1	Step 1. Multiply the divisor by 100 to make it a whole number.
0.0052 x 100 = 0.52	Step 2. Multiply also the dividend by100 because you multiply your divisor by 100.
0.52 ÷ 1 = 0.52	Step 3. Divide as in whole number. Any number divided by 1 is the number itself.

Hence, the quotient of 0.0052 divided by 0.01 is 0.52

Example 2: 6.3 ÷ 0.01 = N

Consider the following steps below:

0.01 x 100 = 1	Step 1. Multiply the divisor by 100 to make it a whole number.
6.3 x 100 = 630	Step 2. Multiply also the dividend by 100 because you multiply your divisor by 100.
630 ÷ 1 = 630	Step 3. Divide as in whole number. Any number divided by 1 is the number itself.

Hence, the quotient of expression 6.3 divided by 0.01 is 630

If you noticed, dividing decimal by 0.01, can also be done by moving the decimal point two place to the right of the divisor. Do the same with the dividend before dividing.

Consider the following steps below:

Example 1: 0.0052 ÷ 0.01 = N

$0.01\overline{)0.0052}$ ➡ $0.01\overline{)0.0052}$

Step 1. Make the divisor a whole number by moving the decimal point two places to the right.

$1\overline{)0.0052}$

Step 2. Move also the decimal point in the dividend two places to the right.

$1\overline{)0.52}$

Step 3. Divide as in whole numbers.

Therefore, the quotient of 0.0052 ÷ 0.01 is 0.52

Example 2: 6.3 ÷ 0.01 = N

$0.01\overline{)6.3}$ ➡ $0.01\overline{)6.3}$

Step 1. Make the divisor a whole number by moving the decimal point two places to the right.

$1\overline{)6.3}$

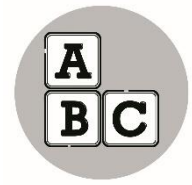
Step 2. Move also the decimal point in the dividend two places to the right.

Notice that if you move two places to the right, there is a place without a digit. So affix zero(s) on the empty places to the right.

$1\overline{)630}$

Step 3. Divide as whole numbers.

Therefore, the quotient of 6.3 ÷ 0.01 is 630.



What's More

Divide the following decimals. Write the correct answer on your answer sheet.

1) 0.1579 ÷ 0.01 = ☐

2) 45.3 ÷ 0.01 = ☐

3) 0.0008 ÷ 0.01 = ☐

4) 960.237 ÷ 0.01 = ☐

5) 2.408 ÷ 0.01 = ☐

What I Have Learned

To divide decimals up to 4 decimal places by 0.01, follow these steps:

1. Change the divisor into a whole number by multiplying it by 100. The same goes for the dividend. When necessary, annex zero or zeros in the dividend if there is/are empty place values to the right after multiplying it by 100.

2. Divide the dividend by the divisor the way you divide whole numbers.

What I Can Do

A. Find the quotient. Write your answers on your answer sheet.

1) 0.0523 ÷ 0.01 = _____

2) 0.4597 ÷ 0.01 = _____

3) 8.457 ÷ 0.01 = _____

4) 11.003 ÷ 0.01 = _____

5) 200.8 ÷ 0.01 = _____

B. Read and solve each problem. Write your answers on your answer sheet.

6) The distance around the circular garden is 7.65 meters. It is surrounded by bamboo slot fence of uniform width size 0.01meter, put side by side without gap. How many bamboo slots were used?

7) Cardo puts 0.01 kilogram of dried mango in each sachet. How many sachets could be filled if he has 9.42 kilograms?

Assessment

Give the quotient. Write the answers on your answer sheet.

1) 0.652 ÷ 0.01= ☐

2) 0.0963 ÷ 0.01= ☐

3) 5.1894 ÷ 0.01= ☐

4) 0.54 ÷ 0.01= ☐

5) 57.365 ÷ 0.01= ☐

6) 0.02 ÷ 0.01= ☐

7) 6.49 ÷ 0.01= ☐

8) 0.908 ÷ 0.01= ☐

9) 0.6 ÷ 0.01 = ☐

10) 7.04 ÷ 0.01= ☐

Additional Activities

A. Divide. Write your answers on your answer sheet.

1) 0.9851 ÷ 0.01 = ☐

2) 12.8743 ÷ 0.01 = ☐

3) 0.0069 ÷ 0.01 = ☐

4) 5.98 ÷ 0.01 = ☐

5) 0.54 ÷ 0.01 = ☐

B. Read and solve each problem. Write your answers on your answer sheet.

6. In a shampoo factory, each machine can repack 10.55 liters per day into smaller packs of 0.01 liter. How many smaller packs can it finish in a day?

7. Merlin packed 0.01 kilograms of polvoron in her special cone delicacies. How many cones can be filled if she has prepared 3.49 kilograms of polvoron?

8. The Grade 6 pupils bought gummy candy from a store. Each gummy candy weighs 0.01 kilogram. If they bought a total of 1.36 kilograms, how many gummy candy did they buy?

9. In an experiment, 9.5 liters of water are placed in a container for misting some plants. Every minute, it sprays 0.01 liter of water. How long will the water last?

10. In a pasta factory, Tess prepared 3.96-meter-long dough for macaroni salad pasta. She cut it by 0.01 meter. How many macaroni salad pasta can she make?

Answer Key

What I Know

1) 25.6
2) 3.6
3) 498.15
4) 0.3
5) 5634.8
6) 70
7) 946
8) 80.9
9) 83
10) 1160

What's In

1) 2.1
2) 3405.72
3) 8.36
4) 40.9
5) 0.05

What's More

1) 15.79
2) 4.530
3) 0.08
4) 96023.7
5) 240.8

What I Can Do

A.

1) 5.25
2) 45.97
3) 845.7
4) 1100.3
5) 20080

B.

6) 675
7) 942 sachet

Assessment

1) 65.2
2) 9.63
3) 518.94
4) 54
5) 5 736.5
6) 2
7) 649
8) 90.8
9) 60
10) 704

Additional Activities

A.

1) 98.51
2)1287.43
3) 0.69
4) 598
5) 54

B.

6) 1 055
7) 349
8) 136
9) 950 mins.
10) 396

What I Know

Find the quotient. Write your answer on your answer sheet.

1.) 0.2573 ÷ 0.001 = **N**

2.) 0.842 ÷ 0.001 = **N**

3.) 1.6109 ÷ 0.001 = **N**

4.) 0.75 ÷ 0.001 = **N**

5.) 0.0006 ÷ 0.001 = **N**

6.) 99.643 ÷ 0.001 = **N**

7.) 8.0045 ÷ 0.001 = **N**

8.) 27.3 ÷ 0.001 = **N**

9.) 0.4 ÷ 0.001 = **N**

10.) 0.7219 ÷ 0.001 = **N**

Lesson 3 Dividing decimals up to 4 decimal places by 0.001

Would you agree with me that dividing decimals up to 4 decimal places by 0.1 and 0.01 were fun-filled experiences? Now, I challenge you to move up in learning how to divide decimals up to 4 decimal places by 0.001. You'll next exercises are more enjoyable.

What's In

Give the quotient. Write the solutions on your answer sheet.

1) 9.844 ÷ 0.1 = **N**

2) 0.017 ÷ 0.01 = **N**

3) 0.2346 ÷ 0.01 = **N**

4) 80.98 ÷ 0.1 = **N**

5) 0.0005 ÷ 0.01 = **N**

What's New

Look at the following number sentences.

How will you find each quotient?

1) 0.9736 ÷ 0.001 = N

2) 5.04 ÷ 0.001 = N

What is It

Example 1: 0.9736 ÷ 0.001 = N

Consider the following steps below:

0.001 x 1 000 = 1	Step 1. Multiply the divisor by 1 000 to make it a whole number.
0.9736 x 1 000 = 973.6	Step 2. Multiply also the dividend by 1 000 because you multiply your divisor by 100.
973.6 ÷ 1 = 973.6	Step 3. Divide as in whole number. Any number divided by 1 is the number itself.

Hence, the quotient of 0.9736 divided by 0.01 equals 973.6

Example 2: 5.04 ÷ 0.001 = N

Consider the following steps below:

0.001 x 1 000 = 1	Step 1. Multiply the divisor by 1 000 to make it a whole number.
5.04 x 1000 = 5 040	Step 2. Multiply also the dividend by 1 000 because you multiply your divisor by 1 000.
5 040 ÷ 1 = 5 040	Step 3. Divide as in whole number. Any number divided by 1 is the number itself.

Hence, the quotient of expression 5.04 divided by 0.001 equals 5 040

If you noticed, dividing decimal by 0.001, can also be done by moving the decimal point one place to the right of the divisor. Do the same with the dividend before dividing.

Consider the following steps below:

Example1: 0.9736 ÷ 0.001 = N

$0.001\overline{)0.9736}$ → $0.001\overline{)0.9736}$

Step 1. Make the divisor a whole number by moving the decimal point three places to the right.

$1\overline{)0.9736}$

Step 2. Move also the decimal point in the dividend three places to the right.

$1\overline{)973.6}$

Step 3. Divide as in whole numbers.

Hence, the quotient of 0.9736 divided by 0.01 equals 973.6.

Example 2: 5.04 ÷ 0.001 = N

$0.001\overline{)5.04}$ → $0.001\overline{)5.04}$

Step 1. Make the divisor a whole number by moving the decimal point three places to the right.

$1\overline{)5.04}$

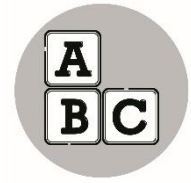
Step 2. Move also the decimal point in the dividend three places to the right.

Notice that if you move two places to the right, there is a place without a digit. So affix zero(s) on the empty places to the right.

$1\overline{)5040}$

Step 3. Divide as in whole numbers.

Hence, the quotient of expression 5.04 divided by 0.001 equals 5 040.



What's More

Find the quotient of the following items. Write your solutions on your answer sheet.

1) 0.0005 ÷ 0.001= **N**

2) 0.1328 ÷ 0.001 = **N**

3) 0.974 ÷ 0.001 = **N**

4) 1.006 ÷ 0.001 = **N**

5) 50.8037 ÷ 0.001 = **N**

What I Have Learned

To divide decimals up to 4 decimal places by 0.001, follow these steps;

1. Change the divisor into a whole number by multiplying it by 1000. The same goes for the dividend. When necessary, annex zero or zeros in the dividend if there is/are empty place values to the right after multiplying it by 1000.
2. Divide the dividend by the divisor the way you divide whole numbers.

What I Can Do

A. Find the quotient of the following. Write the solutions on your answer sheet.

1) 0.7304 ÷ 0.001 = **N**

2) 4.1589 ÷ 0.001 = **N**

3) 22.433 ÷ 0.001 = **N**

4) 0.55 ÷ 0.001 = **N**

5) 0.0096 ÷ 0.001 = **N**

B. Read and solve each problem. Write your answers on your answer sheet.

6) Mr. Cortez bought a bottle of chlorine which contains 0.573 liter. The direction for use states: "mix 0.001 liter per gallon of water". How much water is needed to consume all the chlorine?

7) A 1.063-meter long stick has marking every 0.001 of a meter. Assuming that the starting point or zero point has no marking, how many marks are there in all?

Assessment

Give the quotient of the following items. Write your solutions on your answer sheet.

1) 0.007 ÷ 0.001 = **N**

2) 0.8329 ÷ 0.001 = **N**

3) 0.246 ÷ 0.001 = **N**

4) 5.0547 ÷ 0.001 = **N**

5) 9.85 ÷ 0.001 = **N**

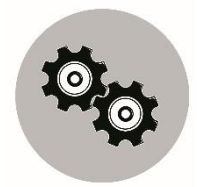
6) 61.2471 ÷ 0.001 = **N**

7) 80.003 ÷ 0.001 = **N**

8) 9.4052 ÷ 0.001 = **N**

9) 341.621 ÷ 0.001 = **N**

10) 0.8 ÷ 0.001 = **N**



Additional Activities

A. Find the quotient. Write the solutions on your answer sheet.

1) 9.7641 ÷ 0.001 = **N**

2) 0.576 ÷ 0.001 = **N**

3) 481. 9305 ÷ 0.001 = **N**

4) 0.0024 ÷ 0.001 = **N**

5) 6.33 ÷ 0.001 = **N**

B. Read and solve each problem. Write your answers on your answer sheet.

6. In a chocolate factory, each bar contains 0.001 kilogram of sweetening mixture. How many chocolate bars can be made from 150 kilograms of sweetener?

7. Mrs. Antonio bought a container of 5.08 liters of vanilla extract for her catering business. She plans to use 0.001 liter of vanilla extract for every liter of leche flan mixture she will make. How many liters of leche flan mixture can she make for a container of vanilla extract she bought?

8. Sunflowers are planted along the 1.463-kilometer highway. The distance from each sunflower is 0.001 kilometer. How many sunflowers are there along the highway?

9. Carl and Mark bought 10.04 kilograms of cinnamon powder. They are going to make special cinnamon muffin using 0.001 kilogram of cinnamon powder per recipe. How many special cinnamon muffins can they make?

10. In a product demo, 0.001 liter of solution is diluted in100-ml cup of water to be used as cleansing mixture. Alice bought a bottle of this solution which contains 0.857 liter. How many 100-ml cups can she make?

Answer Key

What I Know

1) 257.3
2) 842
3) 1610.9
4) 750
5) 0.6
6) 99643
7) 8004.5
8) 27300
9) 400
10) 721.9

What's In

1) 98.44
2) 1.7
3) 23.46
4) 809.8
5) 0.05

What's More

1) 0.5
2) 132.8
3) 974
4) 1006
5) 5083.7

What I Can Do

A.
1) 730.4
2) 4158.9
3) 22433
4) 550
5) 9.6

B.
6) 4.846
7) 1 063
8) 9405.2
9) 341621
10) 800

Assessment

1) 7
2) 832.9
3) 246
4) 5054.7
5) 9850
6) 61 247.1
7) 80003
8) 9405.2
9) 341621
10) 800

Additional Activities

A.
1) 9764.1
2) 576
3) 481930.5
4) 2.4
5) 6330

B.
6) 150 000
7) 5 080
8) 1 463
9) 10 040
10) 857

What I Know

Find the quotient. Write your answers on your answer sheet.

1) 0.83 ÷ 10 = **N**

2) 2 736.54 ÷ 100 = **N**

3) 42.78 ÷ 1 000 = **N**

4) 272.31÷ 1 000 = **N**

5) 10.56 ÷ 10 = **N**

6) 43.61 ÷ 100 = **N**

7) 0.93 ÷ 10 = **N**

8) 386.9 ÷ 1 000 = **N**

9) 6.75 ÷ 100 = **N**

10) 0.9 ÷ 10 = **N**

Lesson 4 Dividing decimals up to 2 decimal places by 10, 100, and 1 000 mentally

Good day learners! Would you agree with me that dividing decimals up to 4 decimal places by 0.1, 0.01 and 0.001 were fun-filled experiences? Now, I challenge you to move up in learning how to divide decimals up to 2 decimal places by 10, 100, and 1 000 mentally. Have fun and a nice trip ahead.

What's In

Find the value N. Try to give the quotient mentally. Write your answers on your answer sheet.

1) 0.58 ÷ 0.1 = **N**

2) 0.0007 ÷ 0.01 = **N**

3) 72.3582 ÷ 0.001 = **N**

4) 68.481 ÷ 0.01 = **N**

5) 0.9435 ÷ 0.001 = **N**

What's New

Study these examples.

A. 0.75 ÷ 10 = 0.075 B. 0.75 ÷ 100 = 0.0075 C. 0.75 ÷ 1 000 = 0.00075

What do you see in the pattern?

What is It

In dividing a decimal number by 10, 100 or 1 000, consider the number of zeros in the divisor.

A. Dividing decimals by 10

3.75 ÷ 10 → 3.75 ÷ 10 = 0.375

Since there is only one zero in the divisor which is 10, move the decimal point of the dividend one place to the left. The new decimal number formed is the quotient. Hence, 3.75 ÷ 10 = 0.375

B. Dividing by 100

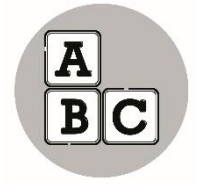
3.75 ÷ 100 → 3.75 ÷ 100 = 0.0375

Since there are two zeros in the divisor which is 100, move the decimal point of the dividend two places to the left. In this case, if you move two places to the left, there is no more digit before 3 so affix zero to the left on the empty place. The new decimal number formed is the quotient.

C. Dividing by 1 000

3.75 ÷ 1 000 → 3.75 ÷ 1 000 = 0.00375

Since there are three zeros in the divisor which is 1 000, move the decimal point of the dividend three places to the left. In this case, if you move three places to the left, there is no more digit before 3 so affix zeros to the left on the empty places. The new decimal number formed is the quotient.



What's More

Give the answer mentally. Write your answers on your answer sheet.

Example: 386.5 ÷ 100 = 3.865

1.) 20.38 ÷ 100 = _____

2.) 57.01 ÷ 10 = _____

3.) 391.74 ÷ 1 000 = _____

4.) 8.06 ÷ 1 000 = _____

5.) 0.04 ÷ 100 = _____

What I Have Learned

To divide decimals up to 2 decimal places mentally, consider the following rules:

a.) In dividing a decimal by 10, move the decimal point of the dividend one place to the left to get the quotient. Affix zero(s) to empty place(s) to the left, if needed.

b.) In dividing a decimal by 100, move the decimal point of the dividend two places to the left to get the quotient. Affix zero(s) to empty place(s) to the left, if needed.

c.) In dividing a decimal by 1 000, move the decimal point of the dividend three places to the left to get the quotient. Affix zero(s) to empty place(s) to the left, if needed.

What I Can Do

A. Find the quotient mentally. Write your answers on your answer sheet.

1.) 14.98 ÷ 10 = _____

2.) 2 308.9 ÷ 1 000 = _____

3.) 7.56 ÷ 100 = _____

4.) 0.13 ÷ 100 = _____

5.) 865.4 ÷ 1 000 = _____

B. Read and solve each problem mentally. Write your answer on your answer sheet.

6.) A store sells dried mangoes in small packs. If it will make 100 packs out of 94.8 kilograms of dried mangoes, how many kilograms will be in each pack?

7.) A grocery store sells flour in small packs. If it will make 100 packs out of 97.5 kilograms of flour, how many kilograms will be in each pack?

Assessment

Give the answer mentally. Write your answers on your answer sheet.

1.) 46.7 ÷ 100 = **N**

2.) 569.38 ÷ 1 000 = **N**

3.) 0 81 ÷ 10 = **N**

4.) 30.4 ÷ 1 000 = **N**

5.) 64.7 ÷ 1000 = **N**

6.) 22.27 ÷ 10 = **N**

7,) 9.4 ÷ 100 = **N**

8.) 286.9 ÷ 100 = **N**

9.) 75.3 ÷ 10 = **N**

10.) 0.02 ÷ 100 = **N**

Additional Activities

A. Find the quotient mentally. Write your answers on your answer sheet.

1.) 54.79 ÷ 10 = **N**

2.) 8.06 ÷ 100 = **N**

3.) 300.2 ÷ 1 000 = **N**

4.) 0.04 ÷ 10 = **N**

5.) 48.93 ÷ 1 000 = **N**

B. Read each problem and answer mentally. Write your answers on your answer sheet.

6.) A circular park has a circumference of 98.5 meters. If 10 flower boxes are to be placed around it, how far apart are the flower boxes if they are at equal distance from each other?

7.) A can of paint contains 563.75 milliliters (mL). This is equivalent to how many liters?

8.) Four hundred eighty-four and six tenths kilograms of sugar is to be placed equally in 100 bags. How many kilograms will be in each bag?

9. A sari-sari store sells sugar in small packs. If it will make 10 packs out of 12.6 kilograms of sugar, how many kilograms will be in each pack?

10.) Sydney Rice Mill can mill 265.25 kilograms of rice every hour. Workers in this company pack the rice in smaller packages of 10 kilograms. How many 10-kilogram packs can they make every hour if they work 4 hours a day continuously?

Answer Key

What I Know

1.) 0.083
2.) 27.3654
3.) 0.4278
4.) 0.27231
5.) 1.056
6.) 0.4361
7.) 0.093
8.) 0.3869
9.) 0.0675
10.) 0.09

What's In

1.) 5.8
2.) 0.07
3.) 72 358.2
4.) 684.81
5.) 943.5

What More

1.) 0.2038
2.) 5.701
3.) 0.39174
4.) 0.00806
5.) 0.004

What I Can Do

A.1.) 1.498
2.) 2.3089
3.) 0.0756
4.) 0.0013
5.) 0.8654
B. 6.) 0.948 kg
7.) 0.975 kg

Assessment

1.) 0.467
2.) 0.56938
3.) 0.081
4.) 0.0304
5.) 0.0647
6.) 2.227
7.) 0.094
8.) 2.869
9.) 7.53
10.) 0.0002

Additional Activities

A.1.) 5.479
2.) 0.806
3.) 0.3002
4.) 0.0004
5.) 0.04893
B. 6.) 0.985 km
7.) 0.5637 Li
8.) 3.846 kg
9.) 1. 26
10.) 106 packs of 10 kilograms each

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