

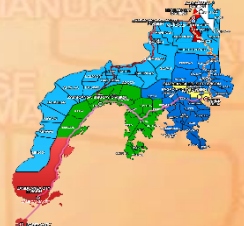
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Republic of the Philippines
Department of Education
 Regional Office IX, Zamboanga Peninsula



5



Zest for Progress
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MATHEMATICS

2ND QUARTER – Module 7:
DIVISION OF DECIMALS & RATIO



Name of Learner: _____

Grade & Section: _____

Name of School: _____

Mathematics- Grade 5
Alternative Delivery Mode
Quarter 2 - Module 7: Division of Decimals & Ratio
First Edition, 2020

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What I Need to Know

After surpassingly doing the activities of this module, you are expected to solve routine and non-routine problems involving division without or with any of the operations of decimals and whole numbers including money using appropriate solving problem strategies and tools, and visualize the ratio of two given numbers. **(M5NS-IIg-120.1, M5NS-IIh-122)**

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, solve routine and non-routine problems involving division without or with any of the operations of decimals and whole numbers, and visualize the ratio of two given numbers. 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

Solve routine and non-routine problems involving division without or with any of the other operations of decimals and whole numbers including money using appropriate problem-solving strategies and tools, and visualize the ratio of 2 given numbers.



What's In

Answer the of the following:

1. $24.16 \div 8 =$

2. $9 \div 1.5 =$

3. $10.35 \div 2.3 =$

4. What is the ratio of \triangle to \circ ?
 \triangle $\circ \circ$

5. Give the ratio of \square \square to \heartsuit ?
 \square \square \heartsuit

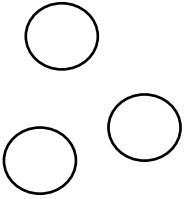
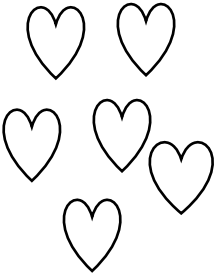
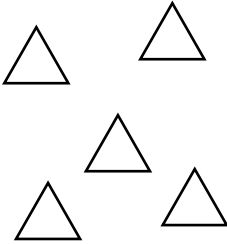
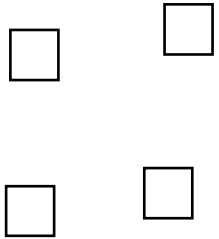


What's New

Solve!

1.

At a department store, men's socks sell at 3 pairs for P97.50. The same kind of socks are sold by sidewalk vendors at 6 pairs for P171.00. Which is the cheaper buy?

2.				
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How do we write the ratio of the following?

1. Hearts to squares. _____
2. Triangles to circles. _____
3. Circles to hearts. _____
4. Squares to triangles. _____
5. Hearts to all the shapes. _____



What is It

1. We use the 4 steps technique to solve the problem and these steps are the following: Understand, plan, solve, and check.

Understand.

- a. What is asked?
 - Which of the two men's socks is the cheaper buy?
- b. What are the given facts?
 - Three pairs of socks for P97.50 at the department store and 6 pairs of socks for P171.00 at the side walk.

Plan.

Strategy: Divide P97.50 by 3 and P171.00 by 6. We can write these as $97.50 \div 3 = n$; $171.00 \div 6 = n$.

Solve.

$$\begin{array}{r} 32.50 \\ 3 \overline{) 97.50} \\ \underline{-9} \\ 7 \\ \underline{-6} \\ 15 \\ \underline{-15} \\ 0 \\ 1 \\ \underline{-0} \\ 0 \end{array}$$

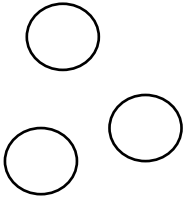
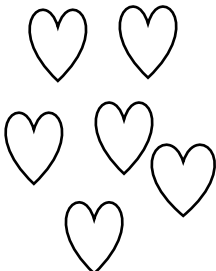
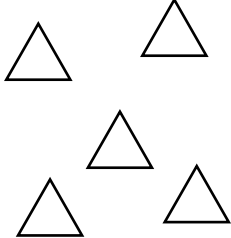
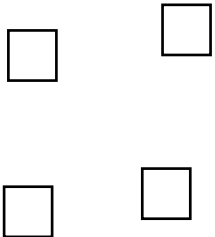
$$\begin{array}{r} 28.50 \\ 6 \overline{) 171.00} \\ \underline{12} \\ 51 \\ \underline{48} \\ 30 \\ \underline{30} \\ 0 \\ 0 \\ \underline{-0} \\ 0 \end{array}$$

Check.

Use estimation to verify the answer.
 97.50 rounds to $98 \div 3$ is about 33
 171 rounds to $170 \div 6$ is about 28.2

Answer: Since $P32.50 > P28.50$, the cheaper buy is the 6 pairs of socks for P171.00.

2. Ratio is a comparison of two different things or numbers. We generally express two numbers as ratio using a colon (:)

2.				
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We write the ratio of the following:

- Hearths to squares 6:4 (Read: 6 is to 4).
- Triangles to circles 5:3 (Read as 5 is to 3)
- Circles to hearths 3:6 (Read as 3 is to 6).
- Squares to triangles 4:5 (Read as 4 is to 5).
- Hearths to all the shapes 6:18 (Read as 6 is to 18).

**What's More**

Activity 1: Solve the problem using the 4 steps technique.

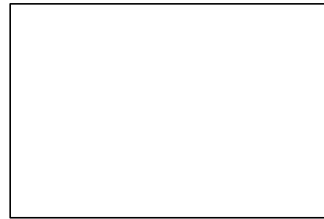
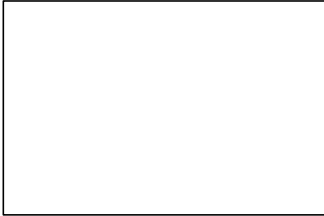
A car's gas tank needs 20.35 liters of gasoline to be filled. After filling it, the driver paid P919.82, how much is the cost of gasoline per liter?

- What is asked in the problem? _____
- What are given facts? _____
- What is the number sentence? _____
- Perform the operation. _____
- What is the answer? _____

Draw the stated objects to represent the ratio below.

1. 3 stars is to 5 circles

2. 8 balls is to 16 leaves



Solve.

- $(2.3 \times 3) \div 0.3 = N$
- An apple costs P 8.50. How many can you buy with P100-bill?



What I Have Learned

How did we solve the word problem involving division of decimals?
How did we write the ratio of two given numbers?



What I Can Do

Prove Yourself: Analyze and answer the following:

Activity 1

Manny has a 17.5 cm iron rod. If he divides it into 2.5 cm equally, how many short rods can he make?

Activity 2

Mr. Cruz is a Grade V Math teacher. He has 30 pupils. One day, he found out that 3 of his pupils were absent. What is the ratio of those who were absent to present?

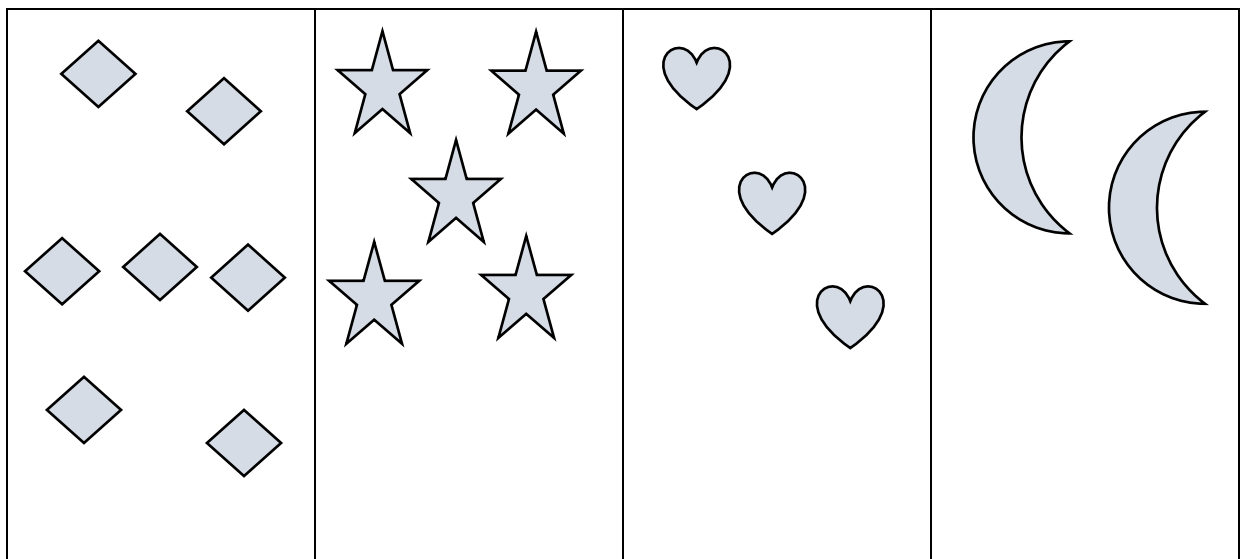


Assessment

Read the questions carefully. Choose the correct answer and write the letter that corresponds the correct answer on your answer sheet.

- Find the quotient of $9 \div 1.5$.
A. 4 B. 5 C. 6 D. 7
- Which of the following is the quotient of $3.2 \div 8$?
A. 0.3 B. 0.4 C. 0.5 D. 0.6
- If we divide 6.5 by 0.5, what is the answer?
A. 13 B. 14 C. 15 D. 16
- What is the quotient of $0.56 \div 0.7$?
A. 0.5 B. 0.6 C. 0.7 D. 0.8
- Five pupils ordered 2 cakes. If they ate an equal amount of the 2 cakes, how much cake did each student eat?
A. 0.4 B. 0.5 C. 0.6 D. 0.6

Use the table below to answer questions 6-10.



Give the ratio of the following:

- Moons to stars.
A. 2:3 B. 2:5 C. 2:7 D. 2:17
- Hearts to diamonds.
A. 3:17 B. 3:2 C. 3:5 D. 3:7
- Hearts to stars.
A. 3:17 B. 3:2 C. 3:5 D. 3:7
- Stars to diamonds
A. 5:2 B. 5:3 C. 5:7 D. 5:17
- Moons to all the shapes.
A. 2:3 B. 2:5 C. 2:7 D. 2:17



Answer Key

Assessment:
 1) C
 2) B
 3) A
 4) D
 5) A

Additional Activities
 Solve
 1.) 23
 2.) 11
 3.) 8

What I Can Do
 Activity 1
 7 short rods
 Activity 2
 3:27

What's More
 Activity 1
 P45, 20
 Activity 2
 7:5, 8:7, 5:20

What's In
 1. 3.02
 2. 6
 3. 4.5
 4. 2:3
 5. 4.2

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