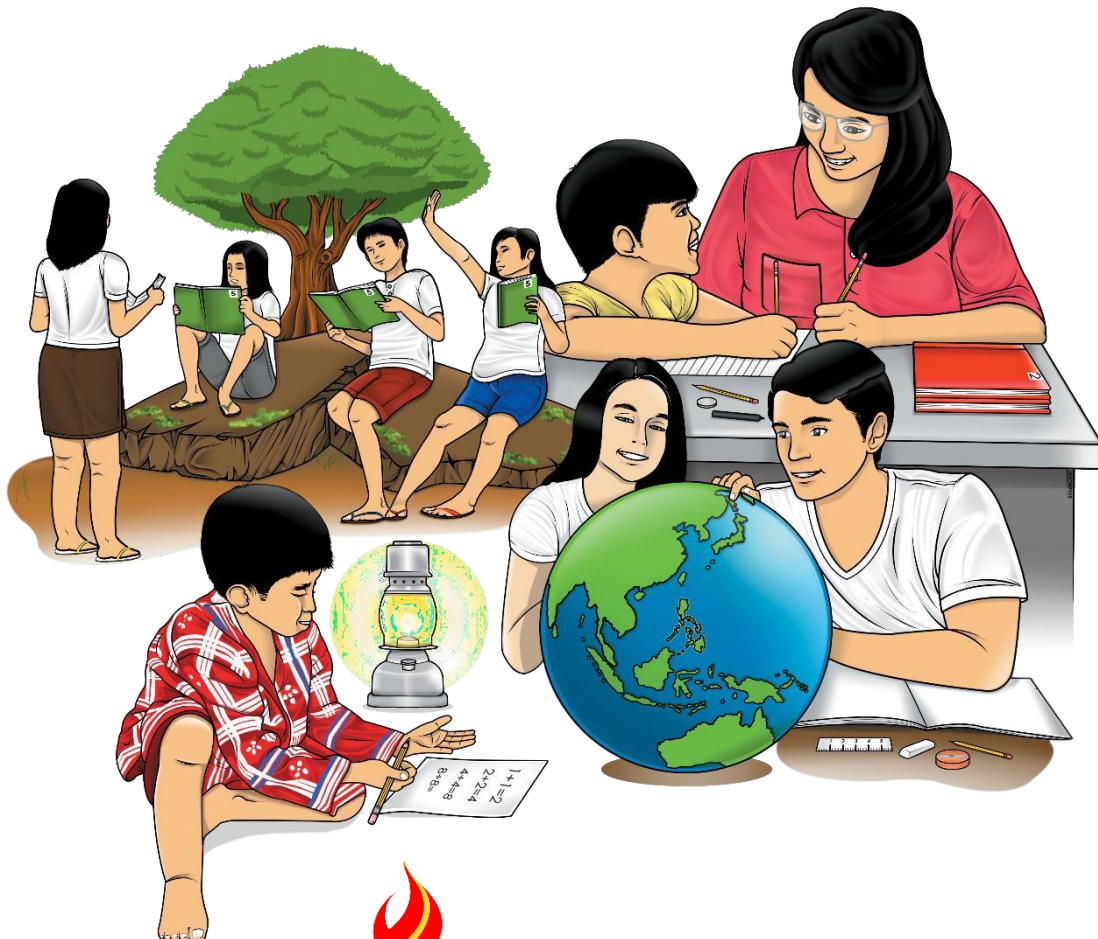


Mathematics

Quarter 2 – Module 9:

Visualizing Division of Whole Number



Mathematics – Grade 3
Alternative Delivery Mode
Quarter 2 – Module 9: Visualizing Division of Whole Number
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

Author: Lowiella Umpad

Editors: Arnel S. Zaragosa, Jeremias C. Ceniza, Gina G. Silvestre, Ph.D.,
Elma C. Prudente, Annie Fel Lingatong, Edgardo Dondon S. Lorenzo,
Ailyn Verula-Ponce, RL.

Reviewers: Helen C. Ugay, Aniceta A. Lumamba, Evelyn M. Lumaan,
Neil Edward D. Diaz

Illustrators: Dennis Macaubos, Alfie Valenteros, Christian Loyd Alfuerio, Pit Ybanez

Layout Artist: Teodorico A. Cabildo Jr.

Management Team: Allan G. Farnazo

Alona C. Uy

Mary Jeanne B. Aldeguer

Maria Gina F. Flores

Analiza C. Almazan

Arnel S. Zaragosa

Ma. Cielo D. Estrada

Jeremias C. Ceniza

Maria Liza I. Berandoy

Illuminado T. Boiser

Printed in the Philippines by _____

Department of Education – Region XI

Office Address: F. Torres St., Davao City
Telefax: (082) 291-1665; (082) 221-6147
E-mail Address: region11@deped.gov.ph * lrms.regionxi@deped.gov.ph

Mathematics

Quarter 2 – Module 9:
Visualizing Division of Whole Number

Introductory Message

This Self-Learning Module (SLM) is prepared so that you, our dear learners, can continue your studies and learn while at home. Activities, questions, directions, exercises, and discussions are carefully stated for you to understand each lesson.

Each SLM is composed of different parts. Each part shall guide you step-by-step as you discover and understand the lesson prepared for you.

Pre-tests are provided to measure your prior knowledge on lessons in each SLM. This will tell you if you need to proceed on completing this module or if you need to ask your facilitator or your teacher's assistance for better understanding of the lesson. At the end of each module, you need to answer the post-test to self-check your learning. Answer keys are provided for each activity and test. We trust that you will be honest in using these.

In addition to the material in the main text, Notes to the Teacher are also provided to our facilitators and parents for strategies and reminders on how they can best help you on your home-based learning.

Please use this module with care. Do not put unnecessary marks on any part of this SLM. Use a separate sheet of paper in answering the exercises and tests. And read the instructions carefully before performing each task.

If you have any questions in using this SLM or any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator.

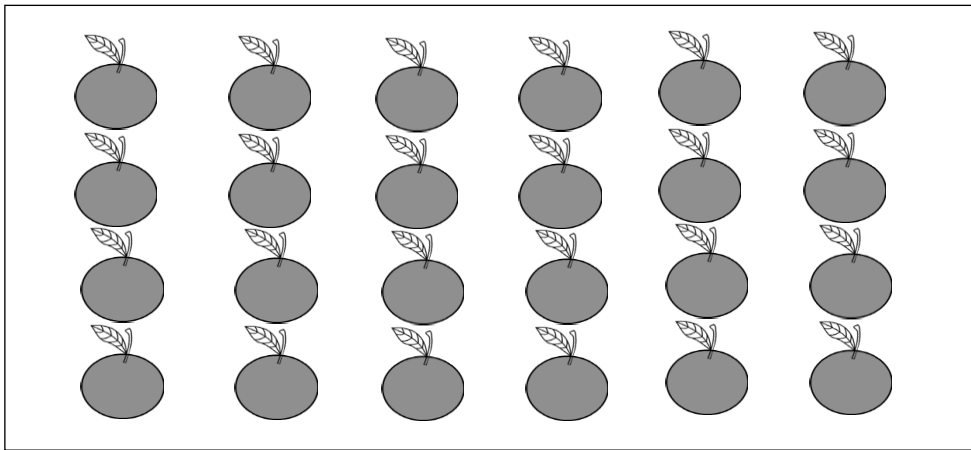
Thank you.



What I Know

Write the correct answer on the blank provided.

_____ 1. The Grade 3 Quezon class plans to sell 24 oranges for the school play. If they divide the class into 6 groups, how many oranges will each member receive?



a. 4

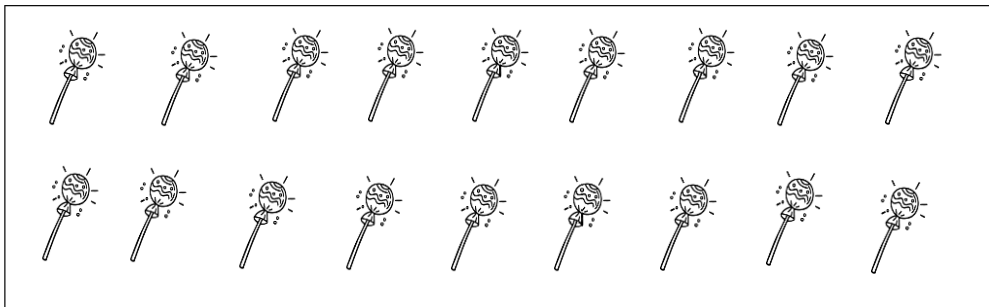
b. 7

c. 8

d. 7

2. Write the division sentence in the problem of item no. 1 and then find the quotient: _____

_____ 3. Sharon had 18 lollipops. She put the same number of lollipops on the 9 tables. How many lollipops did she put on each table?



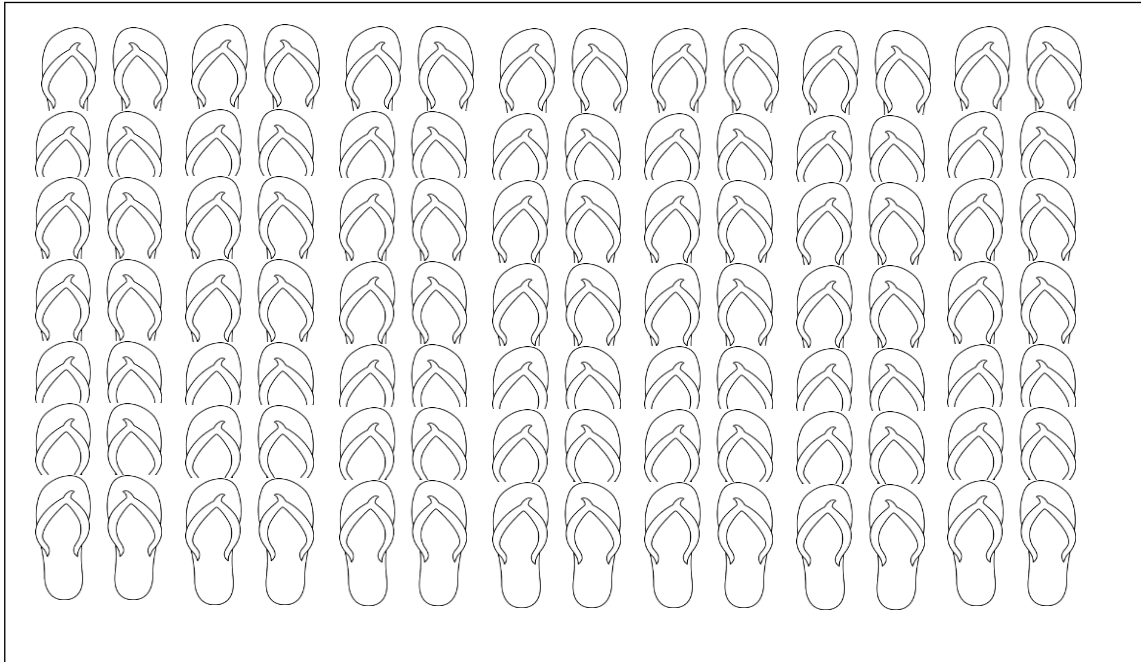
a. 4

b. 2

c. 7

d. 6

4. Sanghay Elementary School received 49 pair of slippers from the LGU of Mati. The pair of slippers would be given to the 7 grade levels. How many pair of slippers will each level receive?



a. 9

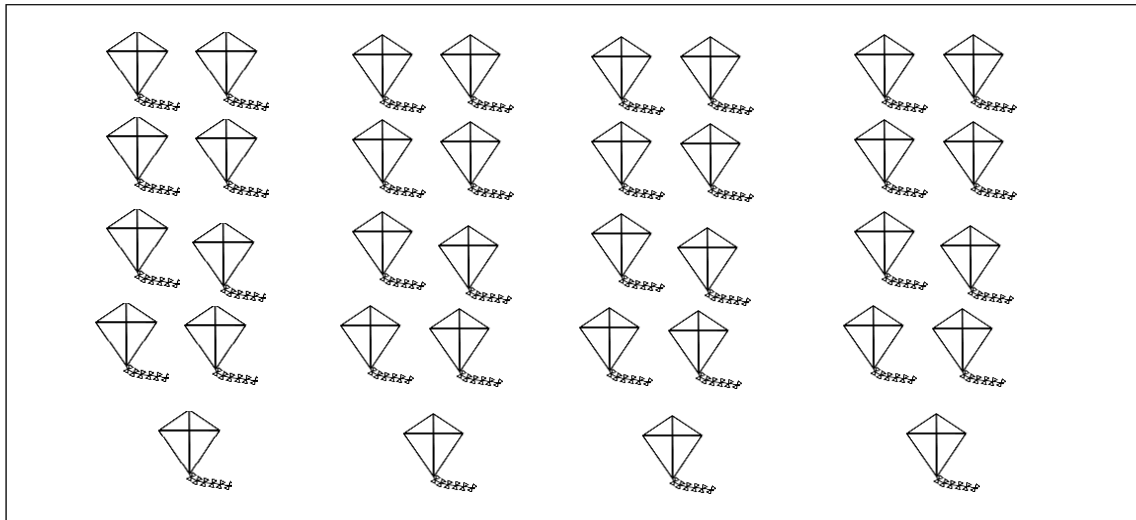
b. 8

c. 7

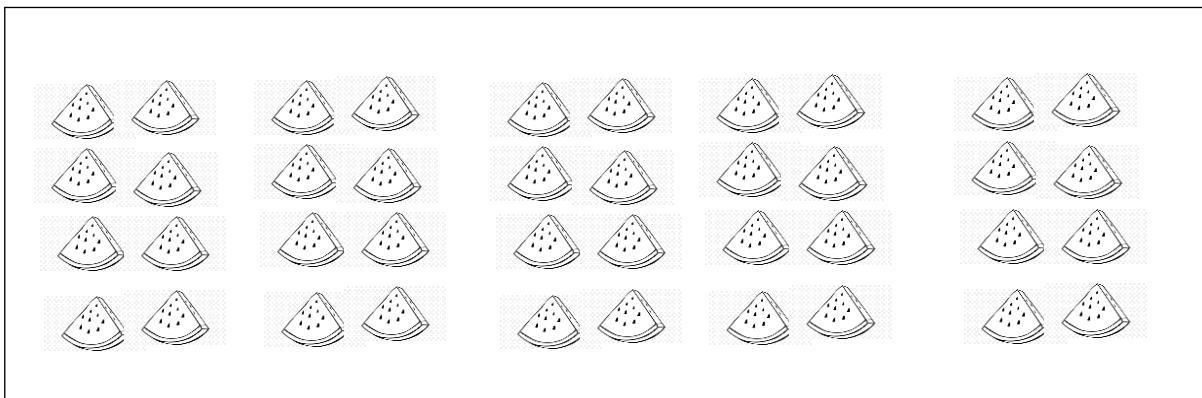
d. 6

Use the given sets of objects to find the quotient.

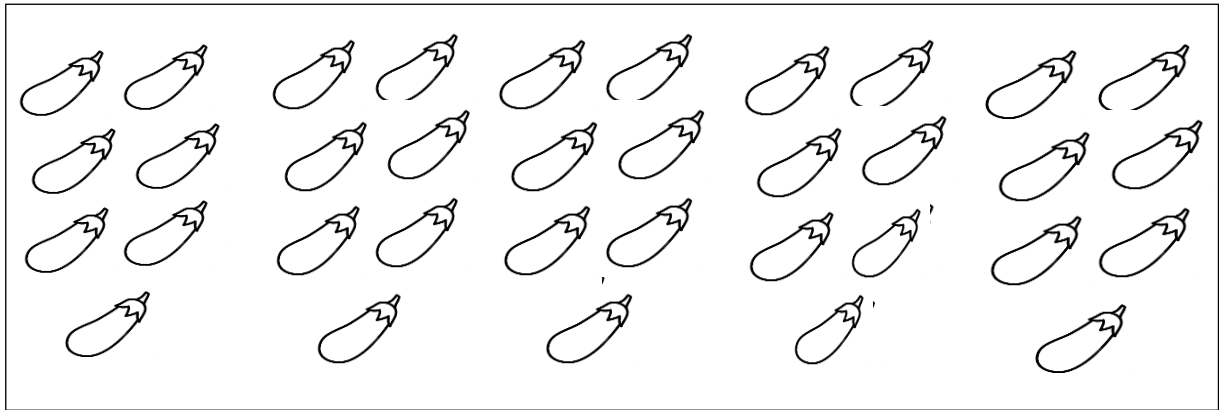
5. $36 \div 9 =$ _____



6. $40 \div 5 =$ _____



7. $35 \div 5 =$ _____



Lesson

Visualizes Division of Numbers up to 100 by 6, 7, 8, and 9

Life is full of undertakings. We must be wise in handling our resources. We have to manage and divide it properly to the different needs in our lives. There are times that we need to solve things involving division of whole numbers. In playing, buying anything or even paying our payments.

In this module, you will learn to visualize division of numbers up to 100 by 6, 7, 8 and 9.



What's In

Activity 1

To learn division, it is important that you mastered multiplication. Let us take a brief review of your knowledge on multiplying numbers 6, 7, 8 and 9.

Supply the missing number to complete each sentence.

1. _____ \times 7 = 42

2. 5 \times _____ = 35

3. 6 \times 7 = _____

4. _____ \times 8 = 56

5. _____ \times 9 = 81



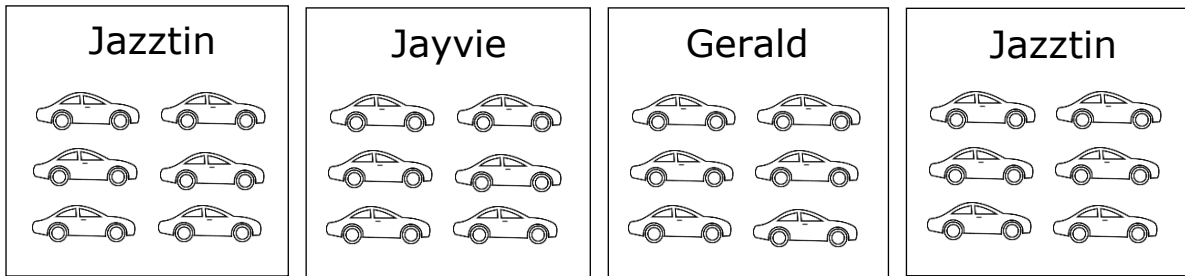
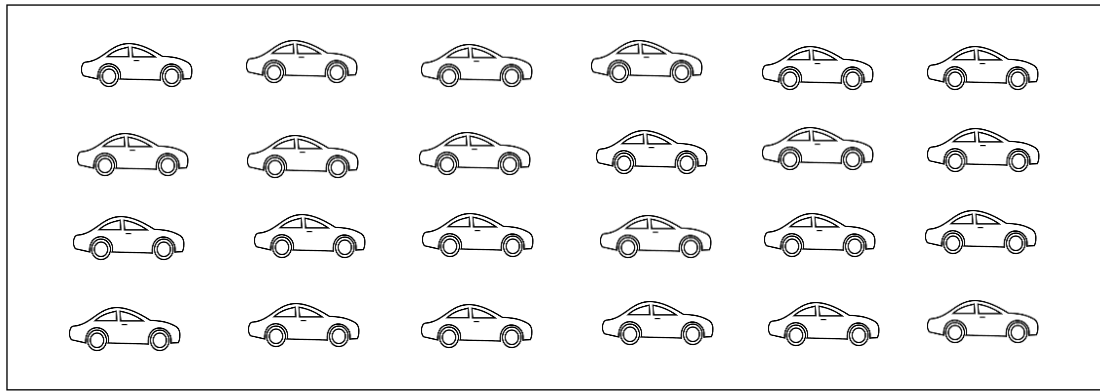
What's New

In this part, we will discuss about division, the inverse operation of multiplication. Division is easier to understand if we do its operation by visualization.

Visualization is to form a mental picture of someone or something.

Example:

Mother bought 24 toy cars from the ER Super Mall. She divided the toy cars to her four children Jazztin, Jayvie, Gerald and Jerald Pol. How many toy cars did each of them receive?



How many toy cars are there in all? 24

How many groups of toy cars are there? 4

How many toy cars are there in each group? 6 How many toy cars each child received? 6

The problem can be solved through an operation called **Division**.

Division is splitting into equal parts or groups. It is the result of "fair sharing". It is one of the four basic operations in Mathematics and as mentioned, it is an inverse operation of multiplication.

The solution of the problem can be written in a number sentence:

$$24 \div 4 = 6 \quad \text{read as } 24 \text{ divided by } 4 \text{ equals } 6$$

where **24** is the Dividend

\div is the Division Sign

4 is the Divisor and

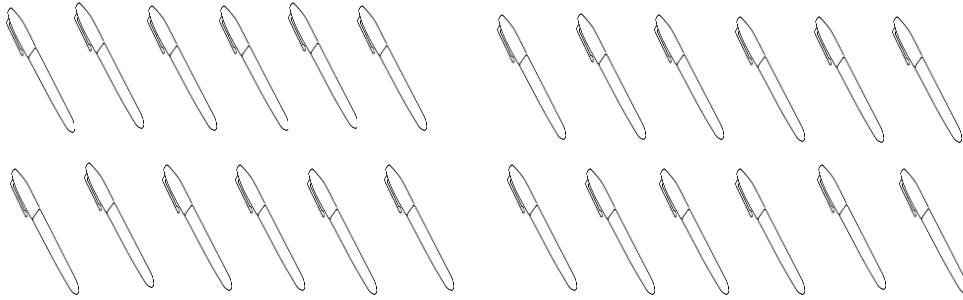
6 is the Quotient

Answer: **There are 6 toy cars each child received.**

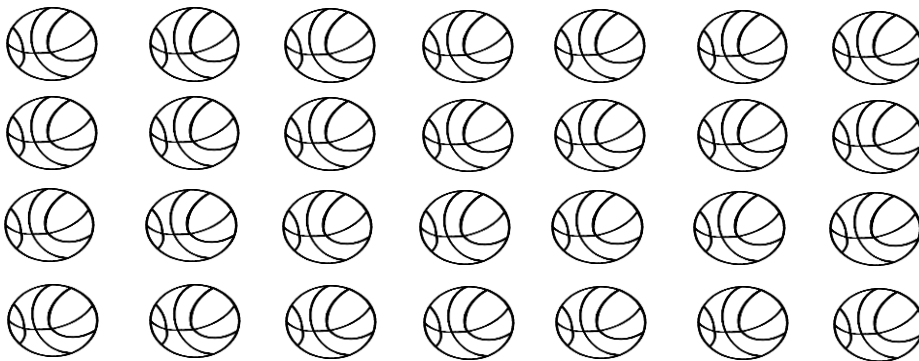
Activity 2

Encircle the groupings as asked then answer the given question.

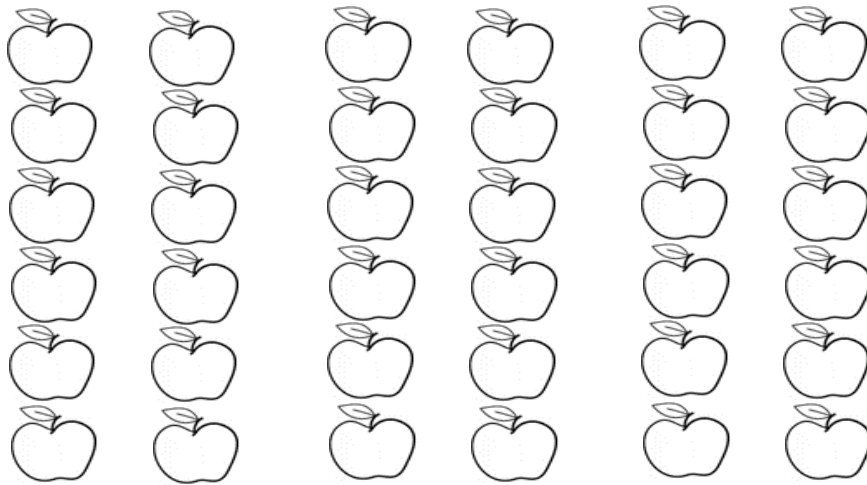
1. In how many times can we group 24 pens by 6? _____



2. How many times can we group the 28 balls by 4? _____



3. How many times can we group the 30 apples by 6? _____



What is It

To visualize division of whole numbers up to 100 by 6, 7, 8 and 9 just follow these simple steps:

1. Draw the objects that will represent the dividend.
2. Group the objects equally according to the given divisor.
3. Count the number of objects in each group to get the quotient.

Example:

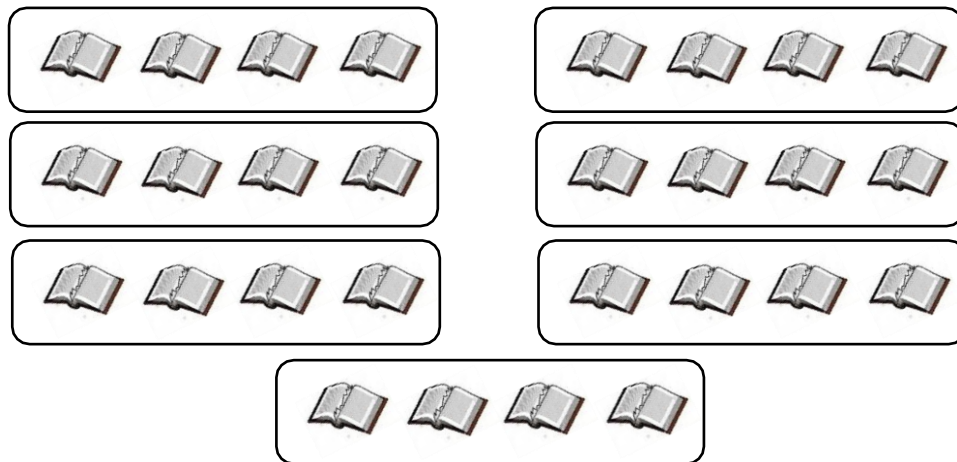
If 28 books are divided by 7 sections, how many books will each section has?

Solution:

Step 1. Picture out the dividend: 28 books



Step 2. Use the divisor in the grouping of objects: 7 sections



Step 3. Count the objects in each set: 4

This can be written in a division sentence: $24 \div 4 = 6$

Notice that when you multiply the quotient and the divisor, it will give you the product equal to the value of the dividend. This illustrates that the division is an inverse operation of multiplication where,

$24 \div 4 = 6$ is the inverse of $6 \times 4 = 24$.

Thus, finding the quotient under division operation is the same as looking at the other factor under multiplication of the given value of the dividend as the product. If you have mastered the multiplication table then it would be easy to find the quotient which is very useful in visualizing the groupings.

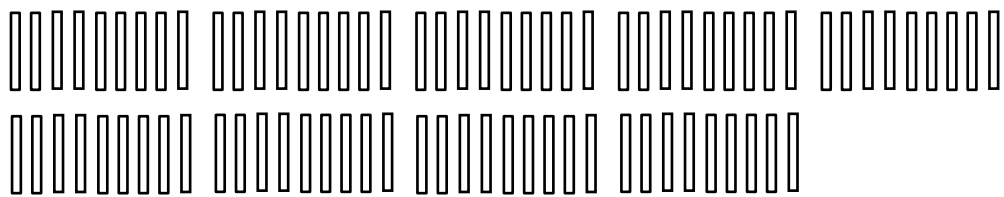
Example:

Visualize $81 \div 9$ to find the quotient.

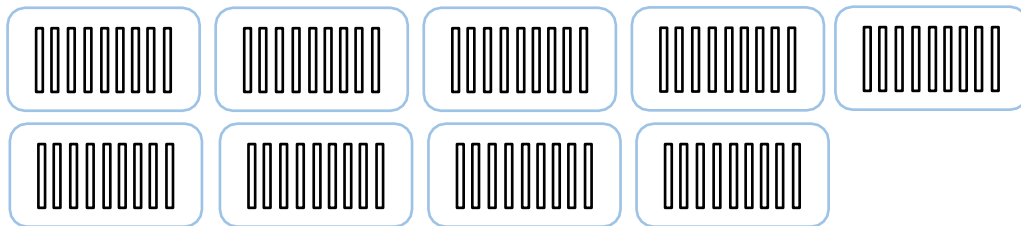
Solution:

Let us use stick to visualize the given operation. Step

1. Picture out the dividend

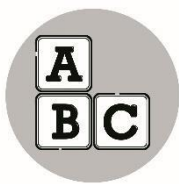


Step 2. Use multiplication to find a multiplier of 9 to get 81. Consider this number in grouping the sticks.



Step 3. The objects in each set is 9.

Answer: $81 \div 9 = 9$



What's More

Activity 3

Fill in the blank.

1. $6 \times 3 = 18 \Rightarrow 18 \div 3 = \underline{\hspace{2cm}}$

2. $7 \times 5 = 35 \Rightarrow 35 \div 7 = \underline{\hspace{2cm}}$

3. $56 \div 8 = \underline{\hspace{2cm}} \Rightarrow 8 \times \underline{\hspace{2cm}} = 56$

4. $27 \div 3 = \underline{\hspace{2cm}} \Rightarrow 3 \times \underline{\hspace{2cm}} = 27$

5. $42 \div 6 = \underline{\hspace{2cm}} \Rightarrow \underline{\hspace{2cm}} \times 6 = 42$



What I Have Learned

To visualize division of whole numbers up to 100 by 6, 7, 8 and 9 just follow these simple steps:

1. Draw the objects that will represent the dividend.
2. Group the objects equally according to the given divisor.
Use multiplication to help you find the grouping easily.
3. Count the number of objects in each group to get the quotient.

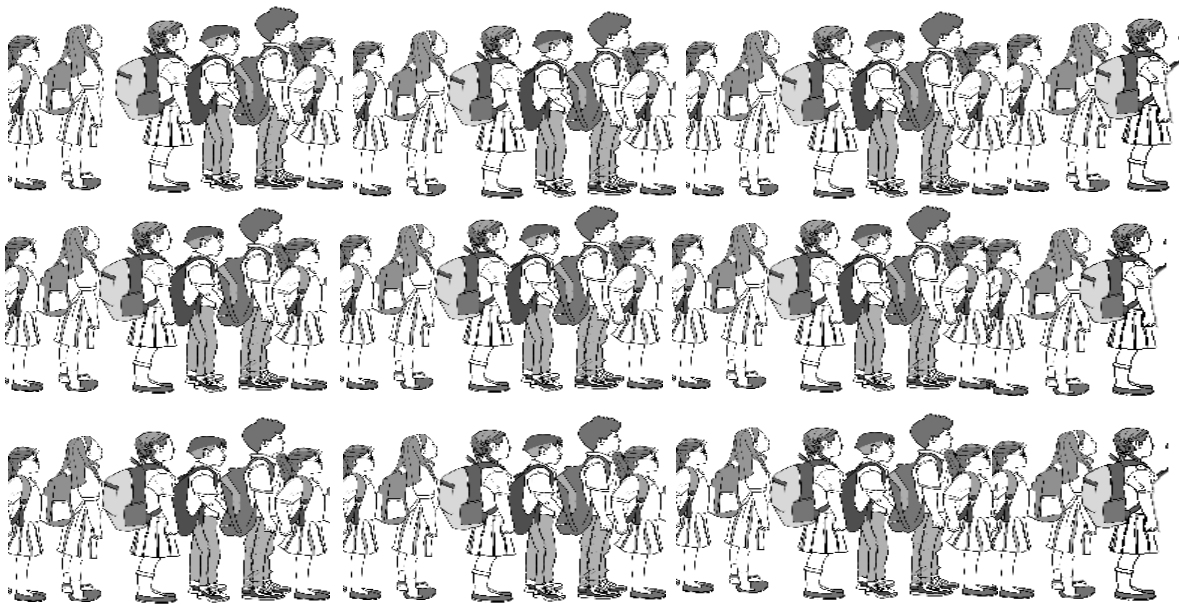


What I Can Do

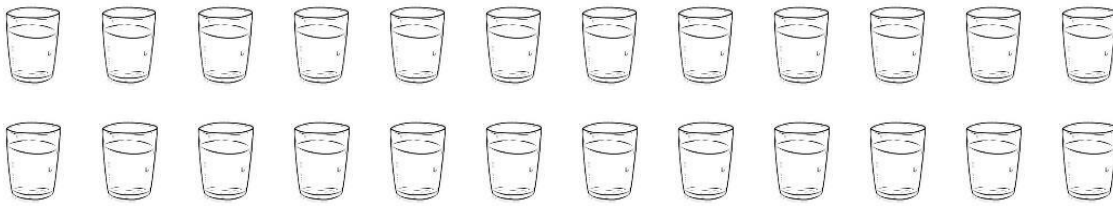
Activity 4

Visualize the following division sentence in the problem by encircling sets of objects to find the quotients. Write the answer on the blank.

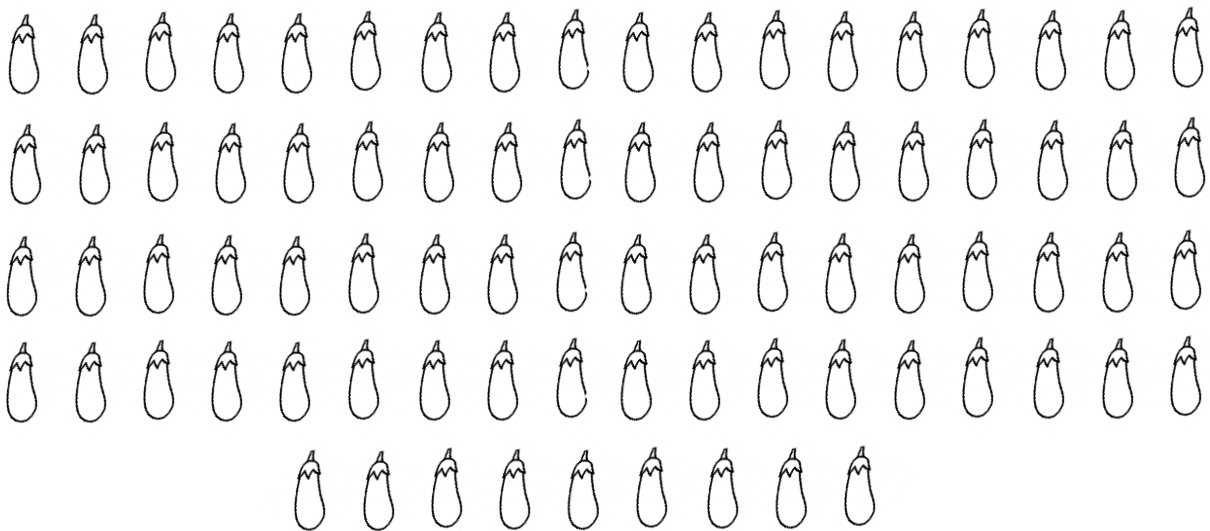
1. There are 63 pupils in Grade 3. They will be equally distributed to the seven Mathematics and Science teachers as their class advisers. How many pupils will be under the advisory of each teacher? _____



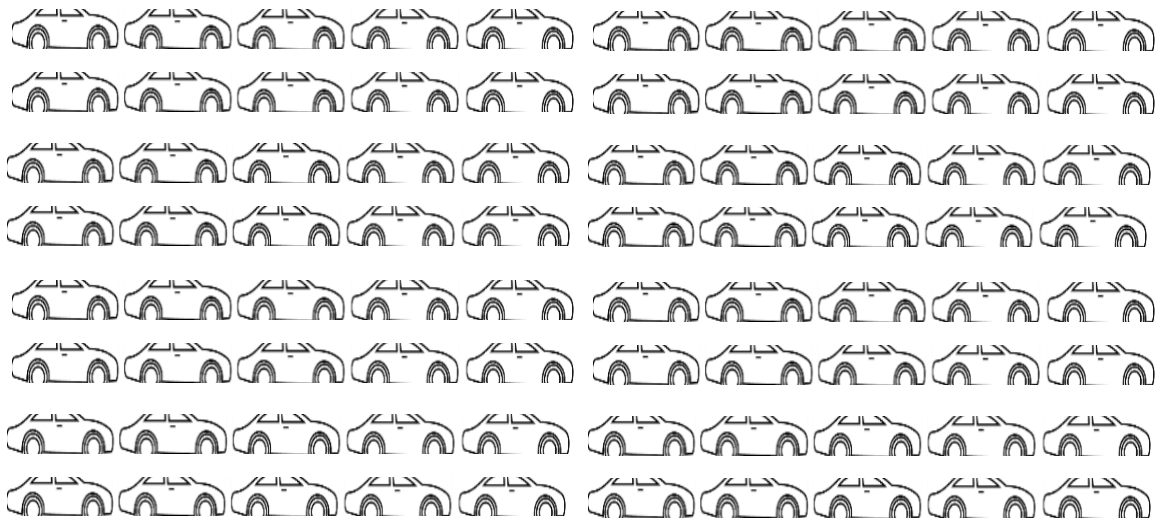
2. Mrs. Umpad have 3 dozens of glasses to be distributed in 6 Girls Scout. How many glasses does each Girl Scout receive? _____



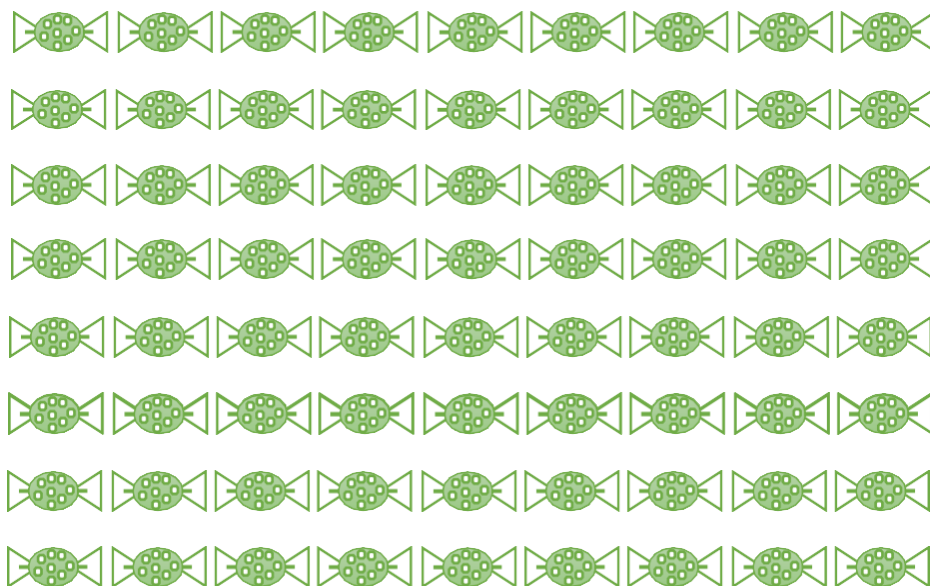
3. There were 81 eggplants to be distributed equally in 9 cartons. How many eggplants will be in each carton? _____



4. Toyota sold 80 cars in 8 months. How many cars did it sell in a month? _____



5. On her birthday, Ana distributed 72 candies among her 8 friends. How many candies did each of her friends receive? _____





Assessment

Use sticks to visualize the following division sentence and find the quotient.

1. $36 \div 9 = \underline{\quad\quad}$

2. $30 \div 6 = \underline{\quad\quad}$

3. $72 \div 8 = \underline{\quad\quad}$

4. $42 \div 7 = \underline{\quad\quad}$

5. $90 \div 9 = \underline{\quad\quad}$



Additional Activities

Activity 5

Find the product and write a division sentence for each item.

1. $8 \times 5 =$ _____

2. $6 \times 9 =$ _____

3. $8 \times 9 =$ _____

4. $7 \times 9 =$ _____

5. $6 \times 8 =$ _____



Answer Key

<p>Additional Activity</p> <p>1. $40 \div 8 = 5$ or $40 \div 5 = 8$ 2. $54 \div 6 = 9$ or $54 \div 9 = 6$ 3. $72 \div 8 = 9$ or $72 \div 9 = 8$ 4. $63 \div 9 = 7$ or $63 \div 7 = 9$ 5. $48 \div 8 = 6$ or $48 \div 6 = 8$</p>	<p>Assessment</p> <p>1. 4, 9 groups of 4 sticks 2. 6, 6 groups of 6 sticks 3. 9, 8 groups of 9 sticks 4. 6, 6 groups of 7 sticks 5. 10, 10 groups of 9 sticks</p>	<p>What I Can Do</p> <p>1. 9, encircled by 9 2. 6, encircled by 6 3. 9, encircled by 9 4. 10, encircled by 10 5. 9, encircled by 9</p>
<p>What's More</p> <p>Activity 3</p> <p>1. 6 2. 5 3. 7, 7 4. 9, 9 5. 7, 7</p>	<p>What's In</p> <p>Activity 1</p> <p>1. 6 2. 7 3. 42 4. 7 5. 9</p> <p>What's New</p> <p>Activity 2</p> <p>1. 4, encircled by 4 2. 7, encircled by 7 3. 5, encircled by 5</p>	<p>What I Know</p> <p>1. a 2. $24 \div 6 = 4$ 3. b 4. c 5. 4 6. 8 7. 7</p>

References

Dela Paz, Aurea V.(n.d.).Realistic Math 3: Scaling Greater Heights.Quezon City: SIBS Publishing House, Inc.

Tiu, Aileen G. and Gureng, Paulino T.(n.d.).Realistic Math Grade2: Scaling Greater Heights.202.Quezon City: SIBS Publishing House, Inc.

Gonzaga, Laura N. and Interia, Eleanor P.(n.d.).Mathematics Skill book 3.(s.l.).(s.n.).

Sibs Math Work text Grade 3, 2nd ed.Quezon City: SIBSPublishing House, Inc.

Department of Education.(2015).Mathematics Teacher's Guide Grade 3, 1st ed. Pasay City: Department of Education.

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.lrqa@deped.gov.ph * blr.lrp@deped.gov.ph