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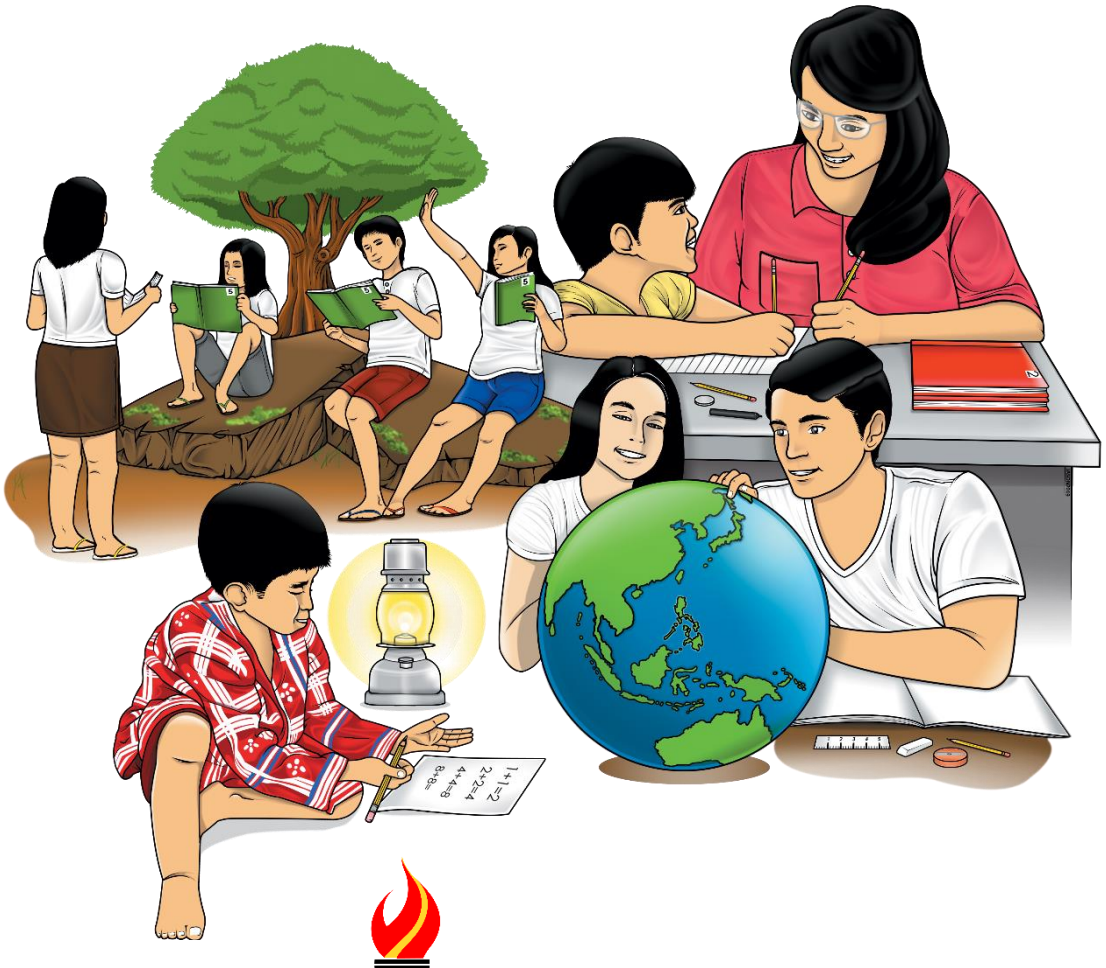
Mathematics

Quarter 2 – Module 9:
Visualizing Division of Whole Number



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Mathematics

Quarter 2 – Module 9:
Visualizing Division of Whole Number

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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.

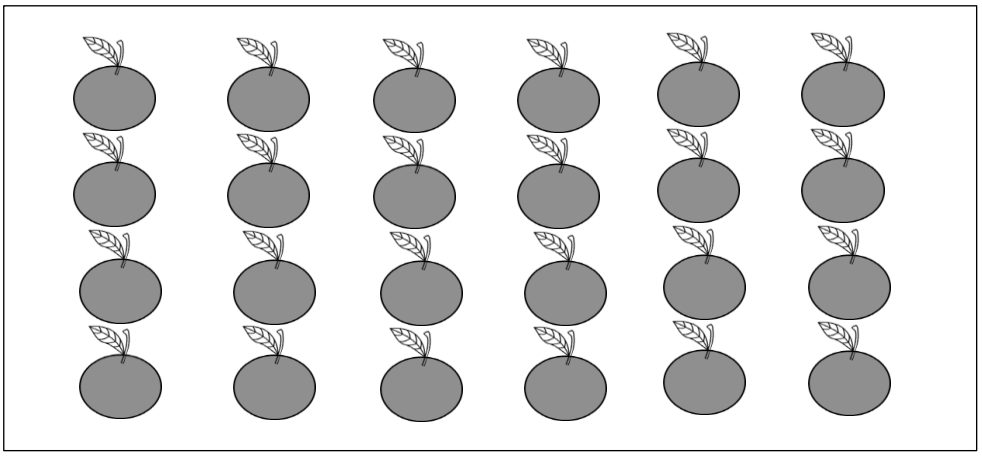
If you have any questions in using this SLM or any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator.

Thank you.

What I Know

Write the correct answer on the blank provided.

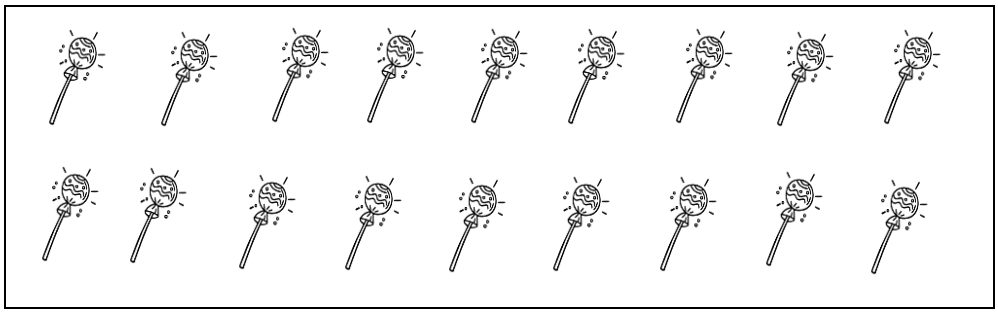
_____1. The Grade 3 Quezon class plans to sell 24 oranges for the school play. If they divide the class into 6 groups, how many oranges will each member receive?



a. 4 b. 7 c. 8 d. 7

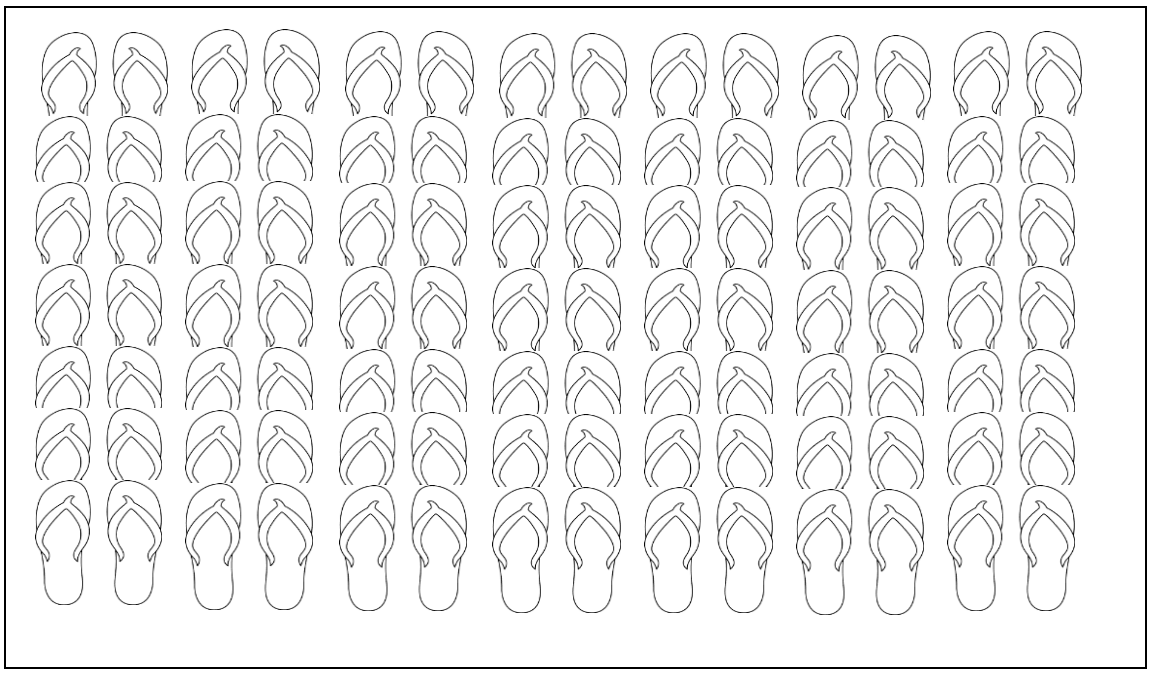
2. Write the division sentence in the problem of item no. 1 and then find the quotient: _____

_____ 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

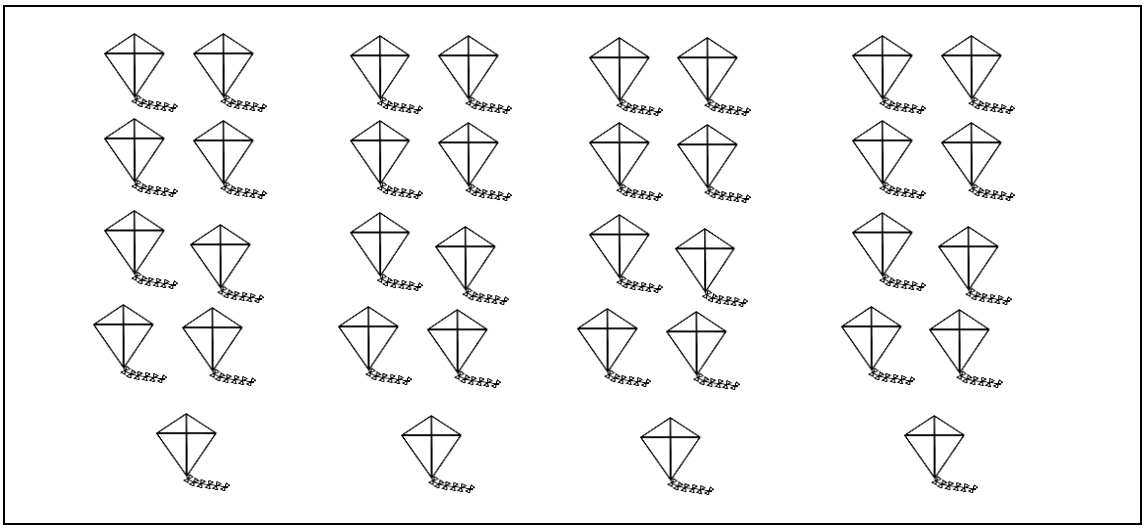
_____ 4. Sanghay Elementary School received 49 pair of slippers from the LGU of Mati. The pair of slippers would be given to the 7 grade levels. How many pair of slippers will each level receive?



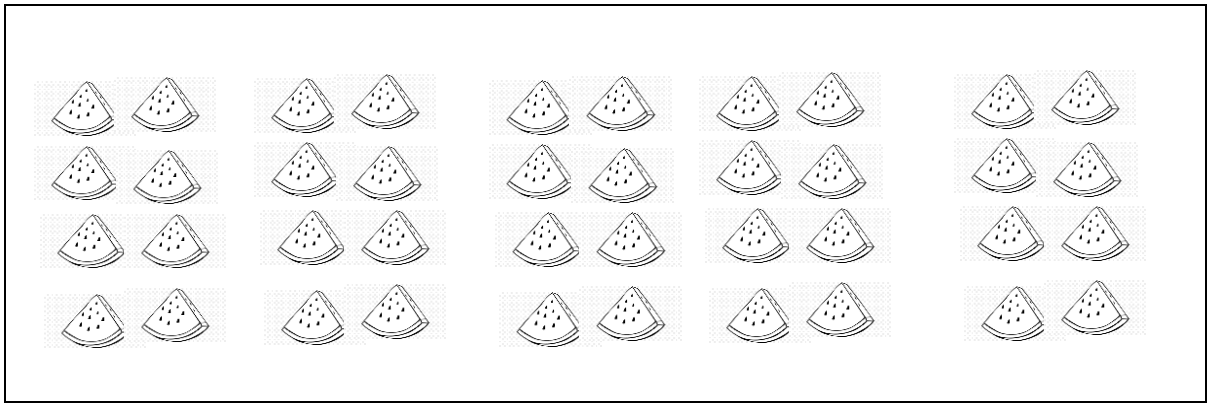
a. 9 b. 8 c. 7 d. 6

Use the given sets of objects to find the quotient.

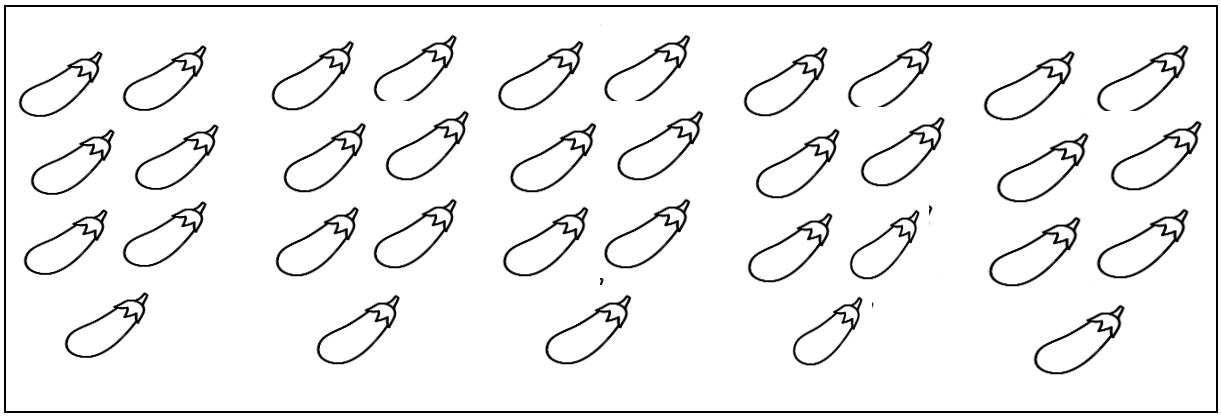
5. 36 ÷ 9 = _____



6. 40 ÷ 5 = _____



7. 35 ÷ 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. _____ x 7= 42
2. 5 x _____ = 35
3. 6 x 7 = _____
4. _____ x 8 = 56
5. _____ x 9 = 81

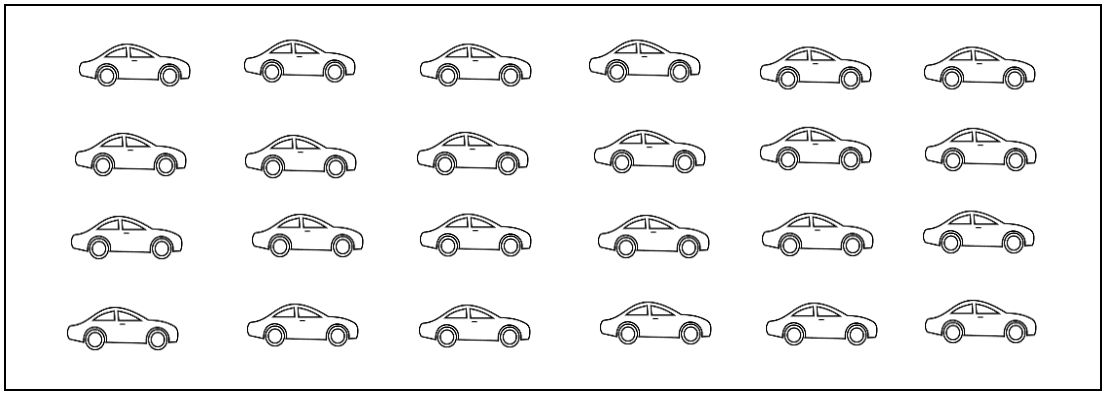
What's New

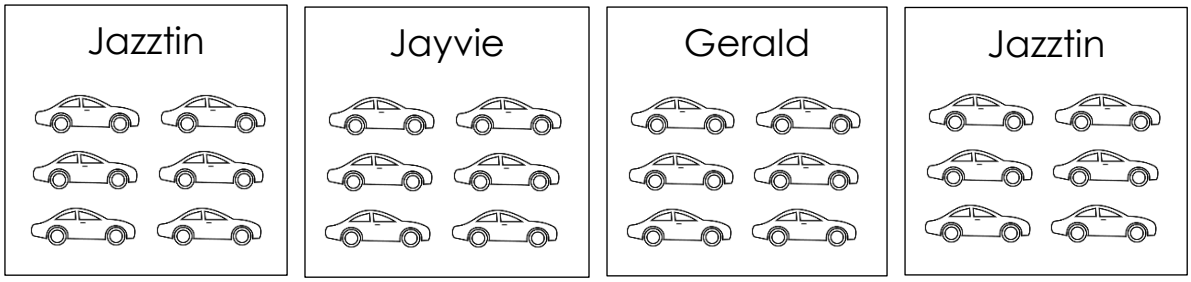
In this part, we will discuss about division, the inverse operation of multiplication. Division is easier to understand if we do its operation by visualization.

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 ÷ 4 = 6 read as **24 divided by 4 equals 6**

where **24** is the Dividend

÷ is the Division Sign

4 is the Divisor and

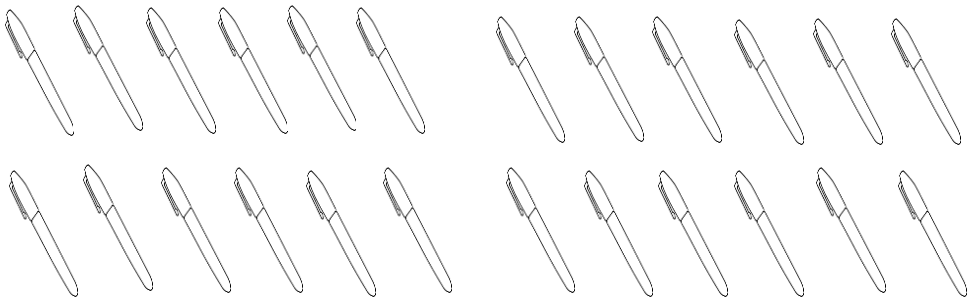
6 is the Quotient

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

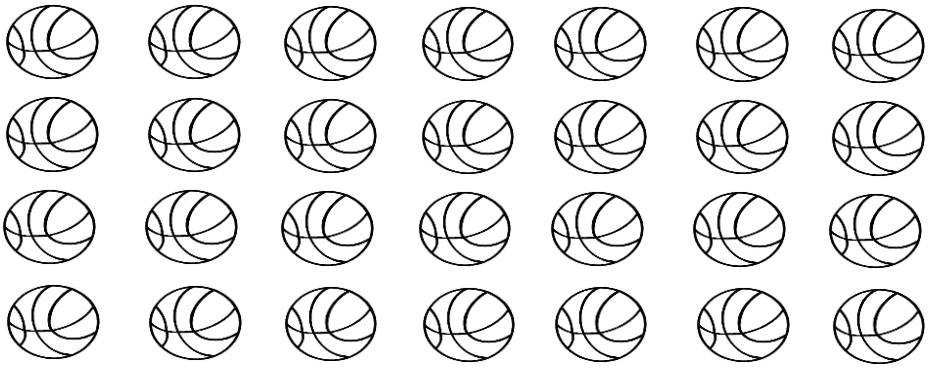
Activity 2

Encircle the groupings as asked then answer the given question.

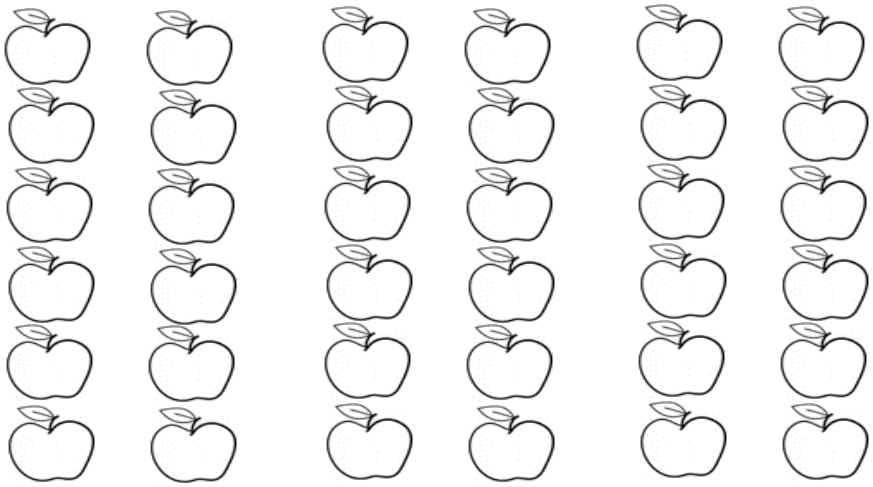
1. In how many times can we group 24 pens by 6? _____



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.

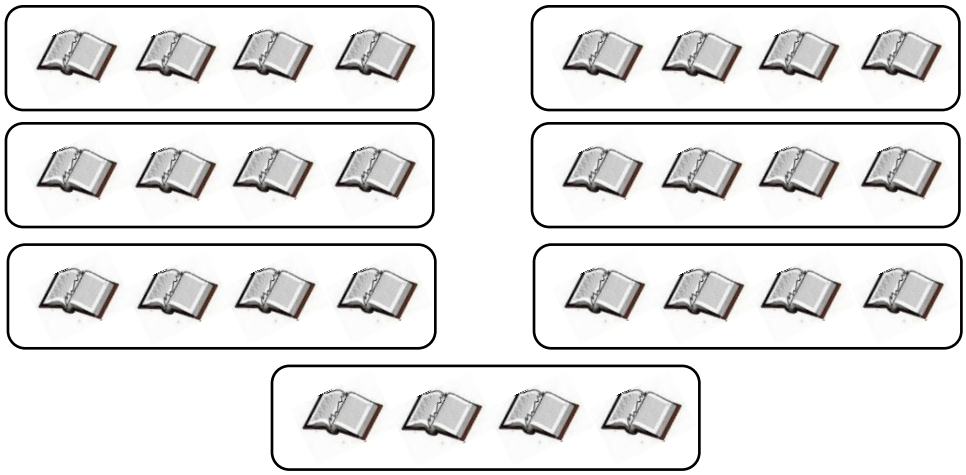
Example:

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 ÷ 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 ÷ 4 = 6 is the inverse of **6 x 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.

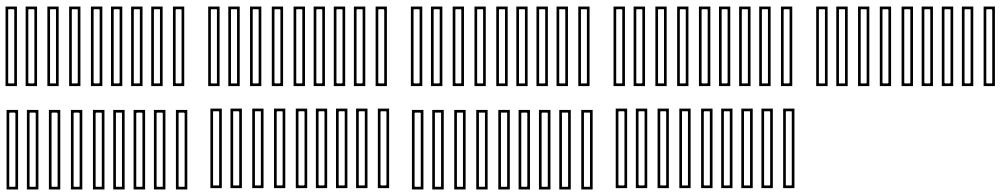
Example:

Visualize 81 ÷ 9 to find the quotient.

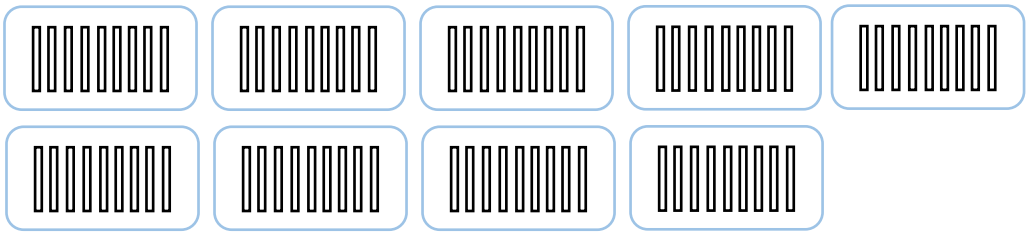
Solution:

Let us use stick to visualize the given operation.

Step 1. Picture out the dividend

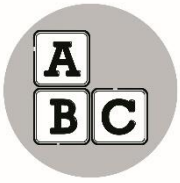


Step 2. Use multiplication to find a multiplier of 9 to get 81. Consider this number in grouping the sticks.



Step 3. The objects in each set is 9.

Answer: **81 ÷ 9 = 9**



What's More

Activity 3

Fill in the blank.

1. 6 x 3 = 18 → 18 ÷ 3 = ___

2. 7 x 5 = 35 → 35 ÷ 7 = ___

3. 56 ÷ 8 = ___ → 8 x ___ = 56

4. 27 ÷ 3 = ___ → 3 x ___ = 27

5. 42 ÷ 6 = ___ → ___ x 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:

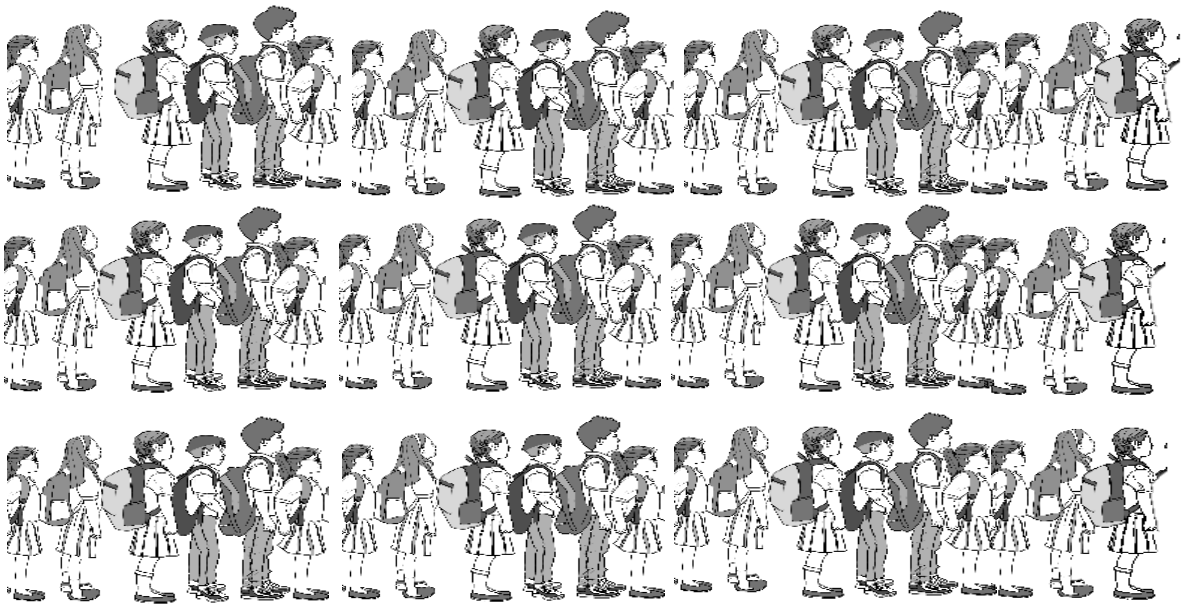
1. Draw the objects that will represent the dividend.
2. Group the objects equally according to the given divisor. Use multiplication to help you find the grouping easily.
3. Count the number of objects in each group to get the quotient.

What I Can Do

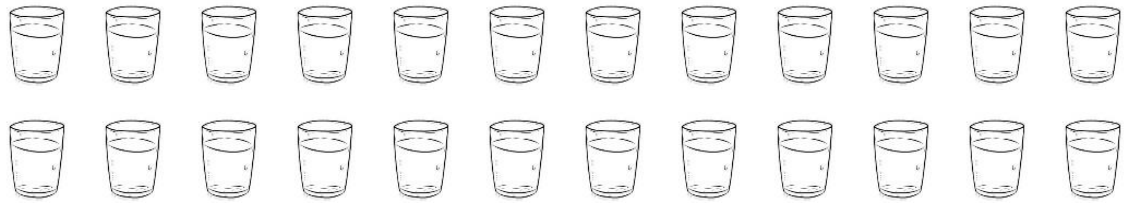
Activity 4

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

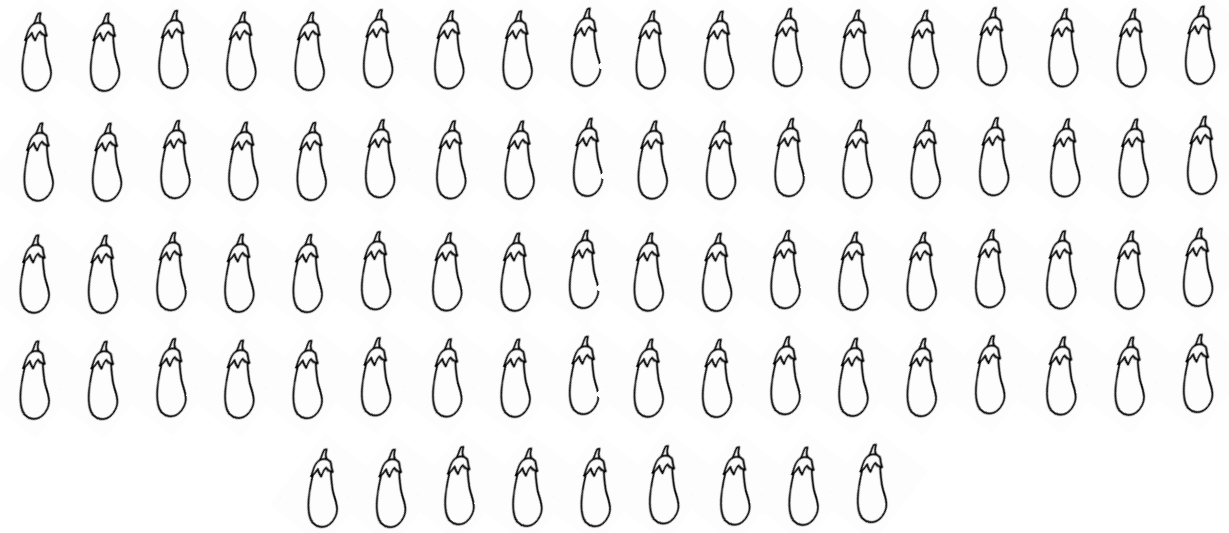
1. There are 63 pupils in Grade 3. They will be equally distributed to the seven Mathematics and Science teachers as their class advisers. How many pupils will be under the advisory of each teacher? _____



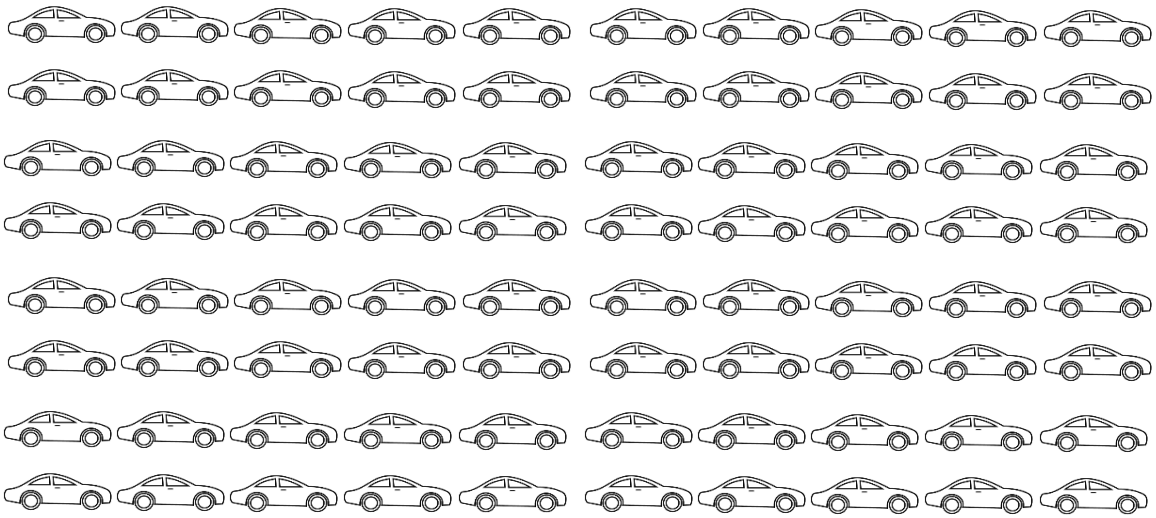
2. Mrs. Umpad have 3 dozen of glasses to be distributed in 6 Girls Scout. How many glasses does each Girl Scout receive? _____



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

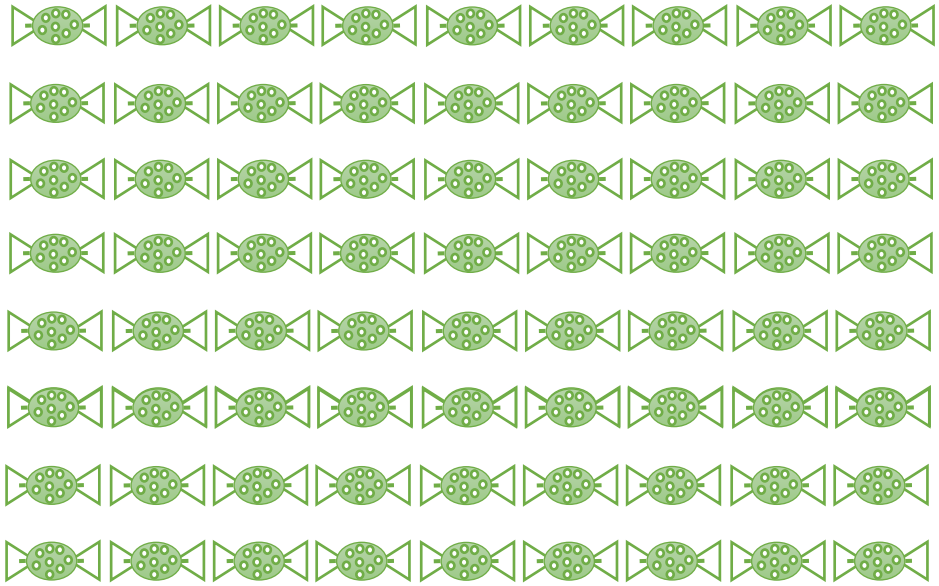


4. Toyota sold 80 cars in 8 months. How many cars did it sell in a month? _____



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.

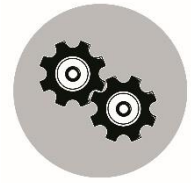
1. 36 ÷ 9 = ____

2. 30 ÷ 6 = ____

3. 72 ÷ 8 = ____

4. 42 ÷ 7 = ____

5. 90 ÷ 9 = ____



Additional Activities

Activity 5

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

1. 8 x 5 = ____

2. 6 x 9 = ____

3. 8 x 9 = ____

4. 7 x 9 = ____

5. 6 x 8 = ____

Answer Key

What I Know

1. a
2. 24 ÷ 6 = 4
3. b
4. c
5. 4
6. 8
7. 7

What's In

Activity 1

1. 6
2. 7
3. 42
4. 7
5. 9

What's New

Activity 2

1. 4, encircled by 4
2. 7, encircled by 7
3. 5, encircled by 5

What's More

Activity 3

1. 6
2. 5
3. 7, 7
4. 9, 9
5. 7, 7

What I Can Do

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

Assessment

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

Additional Activity

1. 40 ÷ 8 = 5 or 40 ÷ 5 = 8
2. 54 ÷ 6 = 9 or 54 ÷ 9 = 6
3. 72 ÷ 8 = 9 or 72 ÷ 9 = 8
4. 63 ÷ 9 = 7 or 63 ÷ 7 = 9
5. 48 ÷ 8 = 6 or 48 ÷ 6 = 8

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