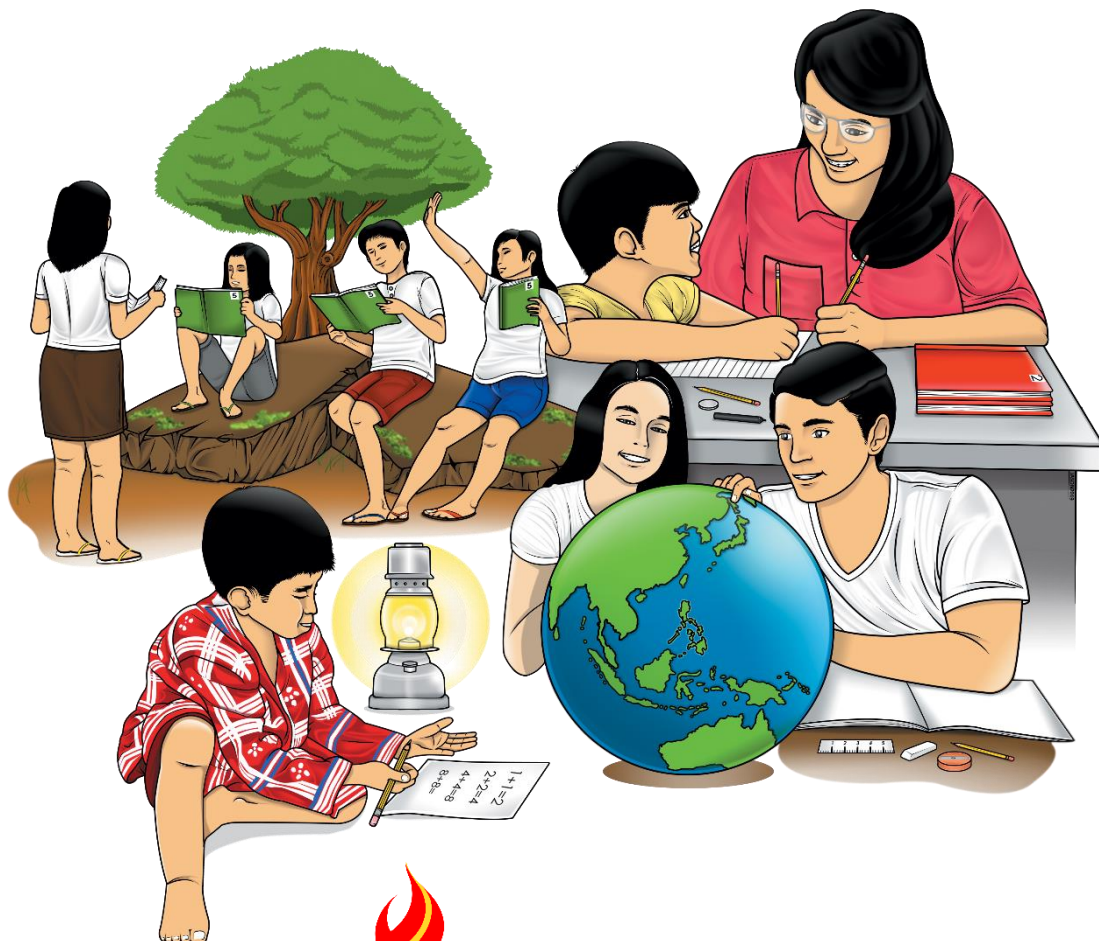


Mathematics

Quarter 2 – Module 10:

Visualizing and Stating Basic Division Facts



Mathematics – Grade 3
Alternative Delivery Mode
Quarter 2 – Module 10: Visualizing and Stating Basic Division Facts
First Edition, 2020

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Mathematics

Quarter 2 – Module 10: Visualizing and Stating Basic Division Facts

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 Need to Know

This module was designed and written with you in mind. It is here to help you master on describing one's drawing about the narratives listened to through composition. The scope of this module permits it to be used in many different learning situations. The language used recognizes your diverse vocabulary backgrounds. 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 Grade 3 Mathematics learning materials you are using.

After going through this module, you are expected to:

1. Visualize division facts and
2. State basic division facts up to 10. **(M3NS-IIg51.3)**

Enjoy your journey. Good luck!



What I Know

Visualize using sticks and state the basic division facts. Write your answer on your notebook or on a separate answer sheet.

1. $15 \div 3 = \underline{\quad}$

2. $27 \div 9 = \underline{\quad}$

3. $20 \div 5 = \underline{\quad}$

4. $30 \div 10 = \underline{\quad}$

5. $14 \div 7 = \underline{\quad}$

Lesson 1

Visualizes and States Division Facts of Numbers up to 10

In this lesson, you will learn about basic division facts up to 10. Basic division facts are needed to follow for dividing numbers. The repeated subtraction of the same number is expressed by division in short form and in long form. We can give or state the division facts by knowing or giving the multiplication facts then convert this into division facts.



What's In

In the previous lesson, you learned about visualizing division of whole number. It is important to master this topic so it would be easy for you to visualize the basic division facts.

Let us review!

Activity 1

Draw leaves below to visualize $12 \div 3$. Write your answer on your notebook or on a separate answer sheet.

Can you now give the answer of $12 \div 3$?



What's New

Division as Repeated Subtraction

You have learned that division is an inverse operation of multiplication. Since multiplication is a repeated addition then we can say that division is a repeated subtraction.

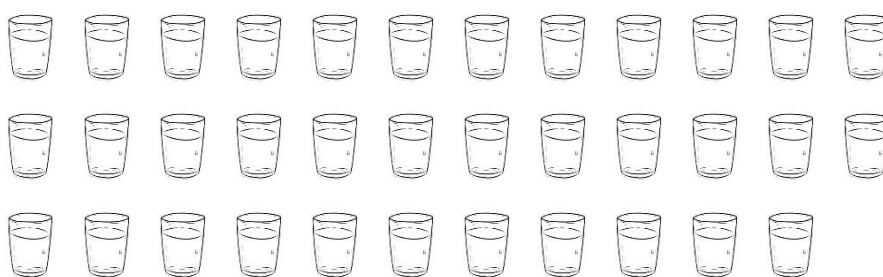
Previous lesson taught you to solve division by grouping equally the dividend according to the number of the divisor. The number of members of each group is the quotient.

This time, you can solve divisions by "subtracting" or crossing out equal-size groups from the total in the visual model, until there is nothing left. Example below shows how division can be solved by repeatedly subtracting the same number (the divisor).

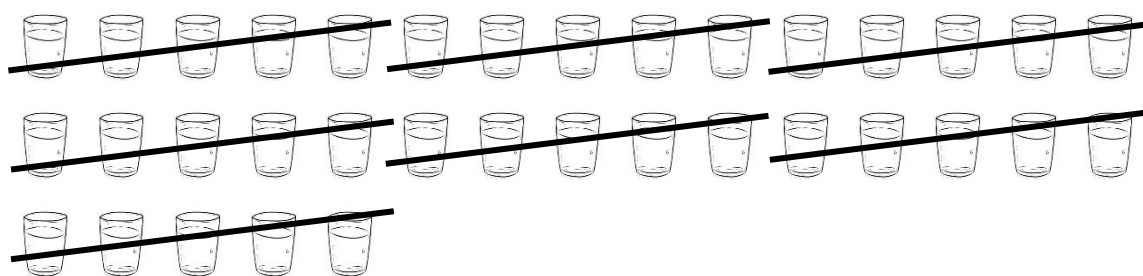
Example: Visualize and state the division fact $35 \div 5$.

Solution:

Step 1. Visualize the value of the dividend



Step 2. Repeatedly subtract the divisor until nothing left



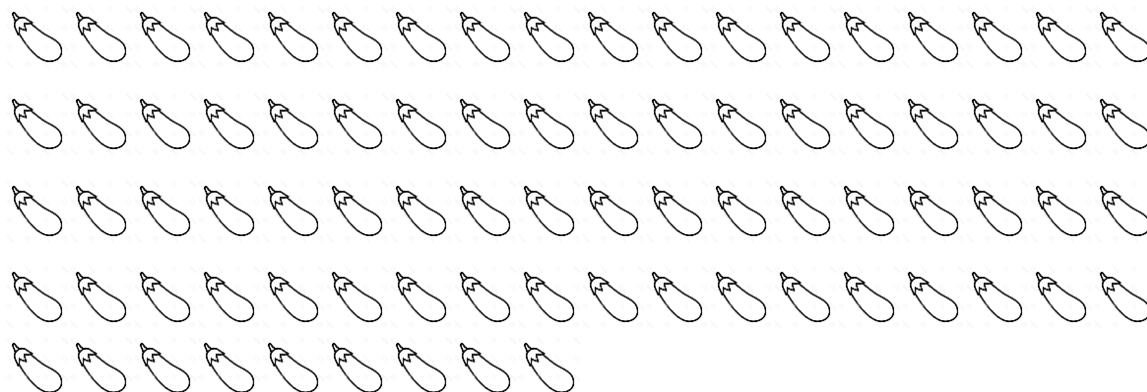
Step 3. Count the number of times the divisor is subtracted: 7 times

Therefore, the division fact is $35 \div 5 = 7$.

Activity 2

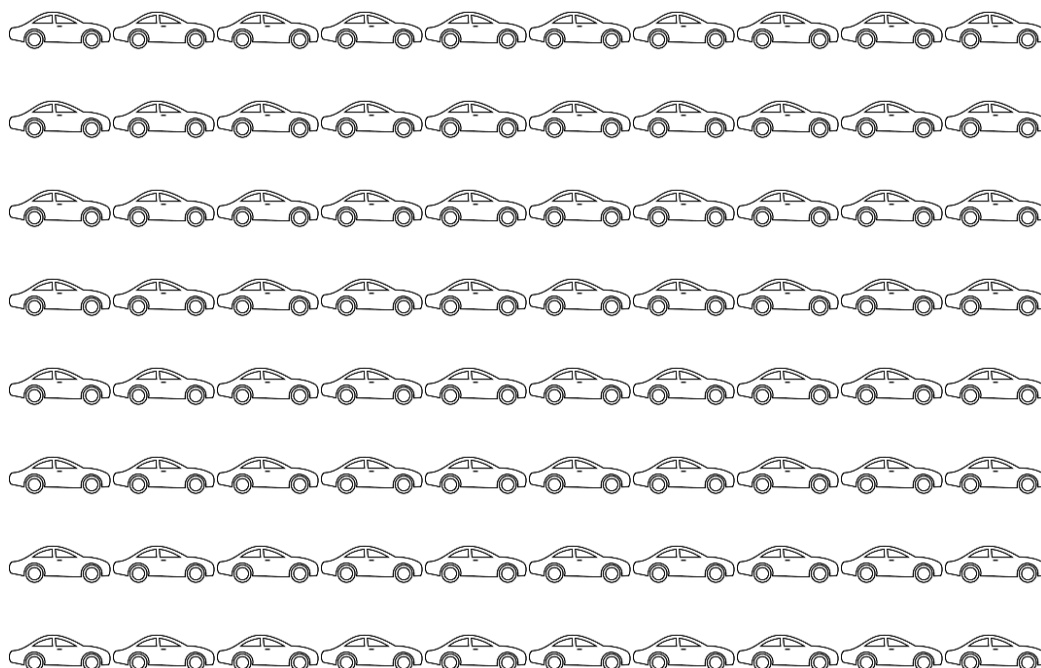
Visualize and state the division fact using repeated subtraction. Write your answer on your notebook or on a separate answer sheet.

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



Division fact: _____

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



Division fact: _____



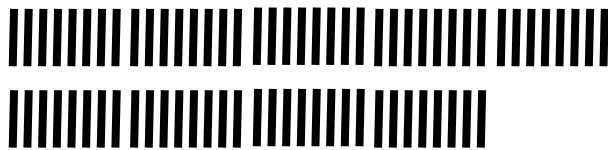
What is It

When the given division fact is in the form of a number we use sticks to easily represent the visualization.

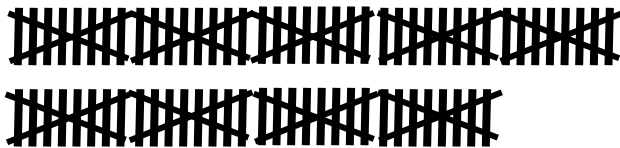
Example: Visualize and state the division fact $72 \div 8$.

Solution:

Step 1. Visualize the value of the dividend

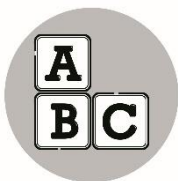


Step 2. Repeatedly subtract the divisor until nothing left



Step 3. Count the number of times the divisor is subtracted: 9 times

Therefore, the division fact is $81 \div 9 = 9$.



What's More

Activity 3

Visualize using sticks and state the basic division facts. Show your solution in your notebook.

1. $25 \div 5$

2. $64 \div 8$

3. $60 \div 10$

4. $42 \div 2$

5. $36 \div 6$



What I Have Learned

How to visualize and state the division facts?

- Step 1. Visualize the value of the dividend using sticks.
- Step 2. Repeatedly subtract the divisor by crossing out the sticks until nothing left.
- Step 3. Count the number of crossed outs
- Step 4. Write the division sentence making the number of crossed outs as your quotient.



What I Can Do

Activity 4

Visualize and state the division sentence in the following situation. Write your answer on your notebook or on a separate answer sheet.

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

Division fact: _____



Assessment

Visualize using sticks and state the basic division facts. Write your answer on your notebook or on a separate answer sheet.

1. $15 \div 3 = \underline{\quad}$

2. $20 \div 10 = \underline{\quad}$

3. $54 \div 6 = \underline{\quad}$

4. $63 \div 7 = \underline{\quad}$

5. $8 \div 8 = \underline{\quad}$



Additional Activities

Activity 5

Visualize and state the basic division fact of each problem. Write your answer on your notebook or on a separate answer sheet.

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. On her birthday, Ana distributed 72 candies among her 8 friends. How many candies did each of her friends receive?
3. 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?



Answer Key

<p>Additional Activity</p> <p>1) 9 9 crossed outs</p> <p>2) 9 9 crossed outs</p> <p>3) 6 6 crossed outs</p>	<p>Assessment</p> <p>1) 5 5 crossed outs</p> <p>2) 2 2 crossed outs</p> <p>3) 9 9 crossed outs</p> <p>4) 9 9 crossed outs</p> <p>5) 1 1 crossed out</p>	<p>What I Can Do</p> <p>Activity 4</p> <p>$72 \div 8 = 9$</p> <p>Drawn 72 sticks or candies with 9 crossed outs with 8 in each group</p>
<p>What's More</p> <p>Activity 3</p> <p>1. 5 5 crossed outs</p> <p>2. 8 8 crossed outs</p> <p>3. 6 6 crossed outs</p> <p>4. 21 21 crossed outs</p> <p>5. 6 6 crossed outs</p>	<p>What's In</p> <p>Activity 1</p> <p>1) $12 \div 3 = 4$</p> <p>12 leaves drawn with 4 groups of 3 being enclosed</p> <p>What's New</p> <p>Activity 2</p> <p>1. $81 \div 9 = 9$ 9 crossed outs</p>	<p>What I Know</p> <p>1) $15 \div 3 = 5, 5$ crossed outs</p> <p>2) $27 \div 9 = 3, 3$ crossed outs</p> <p>3) $20 \div 5 = 4, 4$ crossed outs</p> <p>4) $30 \div 10 = 3, 3$ crossed outs</p> <p>5) $14 \div 7 = 2, 2$ crossed outs</p>

References

K to 12 Curriculum Guide in Math 3

K to 12 Teacher's Guide in Math 3, pages 180-183

K to 12 Learners' Materials in Math 3, pages 163-167

Mathematics for Everyday Use, Grade 2. pages 97-111

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