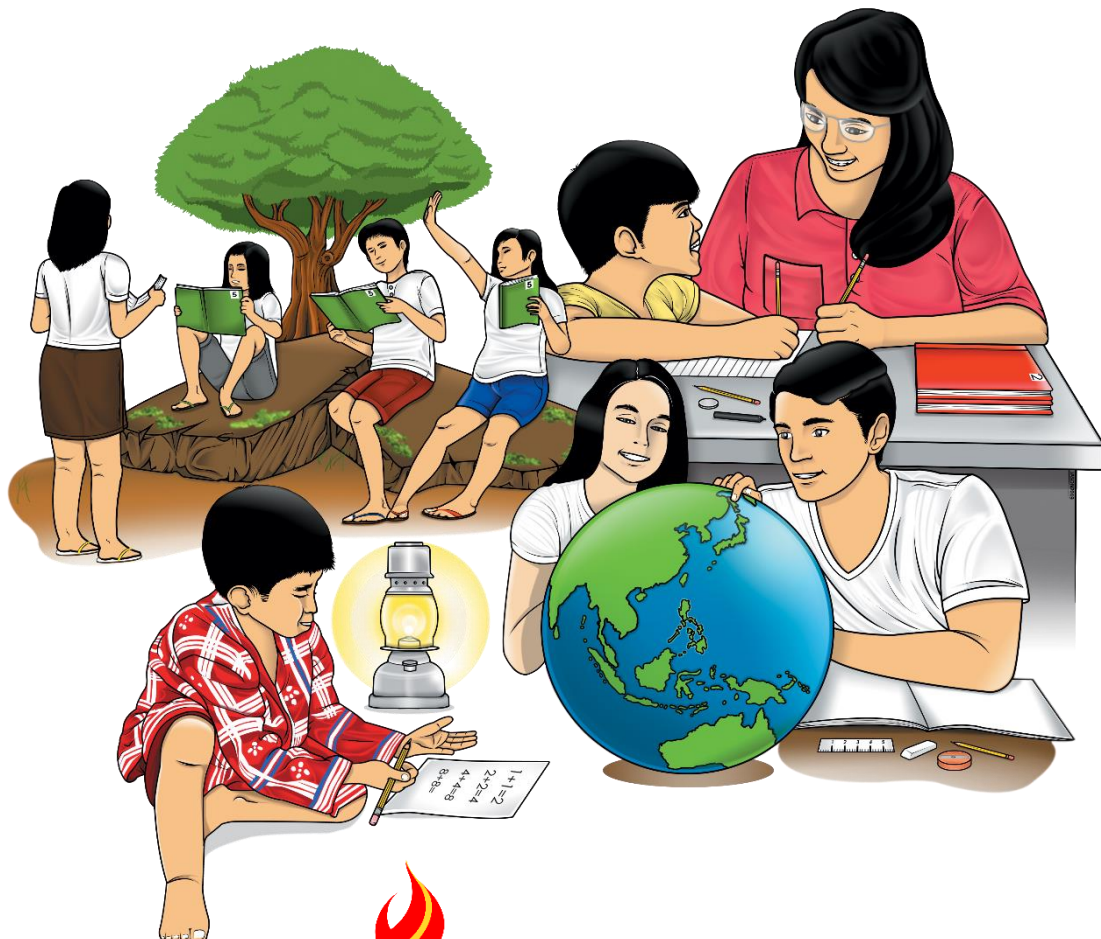


Mathematics

Quarter 1 – Module 16: Solving Problems Involving Subtraction



Mathematics – Grade 3
Alternative Delivery Mode
Quarter 1 – Module 16: Solving Problems Involving Subtraction
First Edition, 2020

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Development Team of the Module

Author: Jocelyn L. Palmera

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

Reviewers: Helen C. Ugay, Edilberto C. Lapaya Jr., Jeneve Nieves,
Myleen C. Robiños

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

Layout Artist:

Management Team: Evelyn R. Fetalvero

Alona C. Uy

Janette G. Veloso

Maria Gina F. Flores

Analiza C. Almazan

Arnel S. Zaragosa

Ma. Cielo D. Estrada

Jeremias C. Ceniza

Renato N. Pacpakin

Illuminado T. Boiser

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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 1 – Module 16:
Solving Problems Involving
Subtraction

Introductory Message

For the facilitator:

Welcome to the Grade 3 Mathematics Alternative Delivery Mode (ADM) Module on **Solving Problems Involving Subtraction!**

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 Grade 3 Mathematics Alternative Delivery Mode (ADM) Module on **Solving Problems Involving Subtraction!**

This module was designed to provide you with fun and meaningful opportunities for guided and independent learning at your own pace and time. It was made easy for you 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 such as 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 builds directly on your fluency with subtraction, addition, and mastery on reading with comprehension.

This is the final module of 1st Quarter. You are encouraged to apply the tools, representation, and concepts you have learned on problem-solving using subtraction and addition. The lesson requires you to demonstrate the flexibility of your thinking and reasoning for a variety of problem types.

The lesson is 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 learning materials you are now using.

After going through this module, you are expected to:

1. Solve routine problem in subtraction with addition including money using appropriate solving strategies.

Enjoy your journey. Good luck!



What I Know

Read, analyze and solve:

1. Becca wanted to sell 1 876 tickets for dance exhibition. She has sold 934 tickets. How many tickets should she sell?
2. Mr. Marquez has 8 874 chicken in his poultry. Only 4 322 lay eggs. How many chicken do not lay eggs?
3. Last year, Miss Thea's monthly salary was ₱32 500. This year her salary is ₱35 350. Find the amount of her increase in salary.
4. Paul ordered rice at ₱2 200 per sack. He paid ₱4 500 to the seller for 2 sacks of rice. How much is the change?
5. A group of pupils helped distributed 7 685 bags of goods to victims of earthquake. If there were originally 2 groups of donations with 4 100 bags from the first group and 5 023 bags for the second group, how many bags still need to be distributed?

Lesson

Solving Routine Problem in Subtraction with Addition Including Money Using Appropriate Solving Strategies

In this module, you will learn how to solve routine problems in subtraction including money using appropriate solving strategies.



What's In

Color the differences. Subtract the given numbers. Color the boxes with the corresponding color code for the differences.

310 – RED

651 – ORANGE

415 – GREEN

316 – BLUE

441 – YELLOW

23 – PURPLE

$$735 - 425 =$$

$$852 - 311 =$$

$$487 - 171 =$$

$$794 - 143 =$$

$$253 - 230 =$$

$$658 - 243 =$$



Notes to the Teacher

Think of other alternative means that would help the pupils to understand more about the previous lesson.



What's New

Activity 1

Solve the following problem using the steps in solving problem.

1. Mother gave Rico ₱30.00 last Friday. Rico spent ₱15.00 for his snacks. How much money was left?

A. Understand:

a. What is asked? _____

b. What are given? _____

B. Plan:

a. What operation to be used?

b. What number sentence can you make?

C. Solve:

a. Answer the number sentence:



What is It

Remember the keywords that will help you know that the problem involves subtraction. These words will give you a clue: decrease, remaining, left, subtract, deduct, opposite, back, the rest, the change, and difference.

In solving routine problem involving subtraction, these are the steps to follow in order to get the correct answer:

- **Read and understand the problem.**
 - a. Know what is asked
 - b. Know the given
- **Plan what to do.**
 - a. Identify what possible operations to be used
 - b. Give the number sentence
- **Solve the problem.**
 - a. Do the required operation
- **Check the answer.**
 - a. Do the reverse operation

Example 1: Solve the problem in Activity 1 by following the steps.

A. Understand:

- | | |
|--------------------|-------------------------|
| a. What is asked? | amount of money left |
| b. What are given? | original money - ₱30.00 |
| | money spent - ₱15.00 |

B. Plan:

- | | |
|------------------------------------|-----------------|
| a. What is the process to be used? | subtraction |
| b. What is the number sentence? | $₱30 - ₱15 = N$ |

C. Solve:

- | | |
|--------------------------------|----------|
| a. Answer the number sentence: | $₱15.00$ |
|--------------------------------|----------|

D. Check:

- | | |
|---------------------------------------|-------------------|
| a. Use addition to check your answer: | $₱15 + ₱15 = ₱30$ |
|---------------------------------------|-------------------|

Example 2:

There were 2 995 people who went to watch a basketball game. Seated in the 1st row were 455 people and 531 people were seated in the 2nd row. The rest of them were in the back rows. How many were seated in the back rows?

A. Understand:

- a. What is asked? number of people seated in the back rows
- b. What are given? 2 995 people, 455 and 531 were seated in the 1st and 2nd rows

B. Plan:

- a. What is the process to be used? subtraction with addition
- b. What is the number sentence? $2\,995 - (455 + 531) = N$

C. Solve:

- a. Answer the number sentence: **2 009** people were seated at the back rows

The example above is an example of a problem on subtraction with addition. There are problems that these two operations would be used to solve the problem.

Example 3: The baker baked 384 cookies. He sold 250 cookies on Monday and 115 on Tuesday. How many cookies were left?

A. Understand:

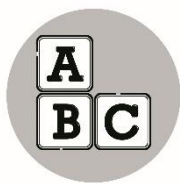
- a. What is asked? number of cookies left
- b. What are given? 384 baked cookies, 250 and 115 cookies sold

B. Plan:

- a. What is the process to be used? subtraction with addition
- b. What is the number sentence? $384 - (250 + 115) = N$

C. Solve using the strategy:

- a. Answer the number sentence: **19** cookies were left



What's More

Activity 2

Solve the following problems:

1. Cora sold 5 485 raffle tickets. Four hundred seventy-three of them were paid. How many raffle tickets were not paid?
2. Aling Martha earned ₱976 from selling meat. She spent ₱365 for her family's food. How much money was left?
3. Mang Raxon harvested 84 ears of corn. He sold 46. How many remaining ears of corn were there?
4. Elly picked 3 953 flowers of three kinds (Daisy, Rose, Santan) for the festival. There are 1 086 Daisy flowers and 756 Roses. How many Santan flowers she picked?
5. A morning newspaper has 347 subscribers from Barangay A. An afternoon newspaper has 132 subscribers from Barangay B and 89 subscribers from Barangay C. How many more subscribers do the morning newspaper has than the afternoon newspaper?



What I Have Learned

Steps in solving problem:

- Read and understand the problem.
 - a. Know what is asked
 - b. Know the given
- Plan what to do.
 - a. Identify the operation to be used
 - b. Give the number sentence
- Solve the problem.
 - a. Do the required operation
- Check the answer.
 - a. Do the reverse operation



What I Can Do

Activity 3

Solve the following problem using the steps in solving problem.

1. In a class of 42 pupils, 39 were present. How many were absent?

A. Understand:

- a. What is asked? _____
b. What are given? _____

B. Plan:

- a. What operation to be used? _____
b. What number sentence can you make?

C. Solve:

- a. Answer the number sentence: _____

2. There are 2 790 pupils enrolled in a school year. Before the classes start, there were 986 enrolled boys and another 543 boys enrolled during and after the first day of classes. How many girls are enrolled?

A. Understand:

- a. What is asked? _____
b. What are given? _____

B. Plan:

- a. What operation to be used? _____
b. What number sentence can you make?

C. Solve:

- a. Answer the number sentence: _____



Assessment

Solve the following word problem using the steps in solving problems.

1. Lenna was able to save ₱125.00 from her daily allowance. She wants to buy a wristwatch that cost ₱9 315. How much more she needs to save so that she can buy the wristwatch?
2. Rebecca planted 6 732 pechay seedlings. Six hundred twenty-one of the seedlings were destroyed by the animals. How many pechay seedlings were Rebecca expect to grow?
3. There are 59 new mathematics books in the library. If 27 are grade 2 books and 16 are grade 3 books while the rest are grade 4 books, how many books are there for grade 4 pupils?
4. Lady saved ₱9 000 in a bank. She withdrew ₱3 500 to buy groceries. How much of Lady's money is left in the bank?
5. Teacher Maria wants to buy a TV set for her classroom worth ₱5 795. The Barangay Councilors donated ₱ 878.00 and ₱500 from the Barangay Captain. How much more does she need?



Additional Activities

Activity 5

Solve the following problems below but this time try to **solve it mentally**. Write your answer directly without writing the solution on the paper then compare your answer to the answer key found on the next page.

1. Jenny had ₱95. She spent ₱30 for her juice and biscuits. How much money was left?
2. The farmer gathered 93 bananas in the orchard. Forty-two were yellow. How many were not yellow?
3. Bryan has 68 marbles. He gave his brother 32 marbles. How many were left to him?
4. Athena had ₱850.00, she bought a pair of slippers worth ₱275.00, how much change did she get?
5. A company printed 9 500 books. If 98 565 books are needed, how many books does the company have to print?



Answer Key

<p>Additional Activity</p> <ol style="list-style-type: none"> 1. ₱ 65.00 2. 46 unripe bananas 3. 36 marbles 4. ₱ 575.00 5. 7,615 books 	<p>Assessment</p> <ol style="list-style-type: none"> 1. ₱ 9 190 2. 6 111 pechay seedlings 3. 16 books 4. ₱ 5,500 5. ₱ 4,417 	<p>What I Can Do</p> <p>Activity 3</p> <ol style="list-style-type: none"> 1. A. a. number of absent b. 42 pupils, 39 were present B. a. subtraction b. $42 - 39 = N$ C. a. 3 pupils were absent 2. A. a. number of girls b. 2 790 pupils enrolled 986 and 543 boys enrolled B. a. subtraction with addition b. $2790 - (986 + 543) = N$ C. a. 1,261 girls
<p>What's More</p> <p>Activity 2</p> <ol style="list-style-type: none"> 1. 1 412 raffle tickets not paid 2. ₱ 611 were left 3. 38 ears of corn 4. 2 111 Santan flowers 5. 126 subscribers 	<p>What's In</p> <ol style="list-style-type: none"> 1. 310 – RED 2. 415 – GREEN 3. 441 – YELLOW 4. 651 – ORANGE 5. 316 – BLUE 6. 23 – PURPLE 	<p>What I Know</p> <ol style="list-style-type: none"> 1. 942 tickets she should sell. 2. 4 552 chicken didn't lay egg. 3. Php 2 850.00 amount increase her salary. 4. Php 100.00 is the amount of the change. 5. 1 438 bags of goods needed to be distributed.

References

K-12 Mathematics 3 Teacher's Guide

K-12 Mathematics 3 Learner's Material

Elementary Mathematics Grade 3

Mathematics Skills Book 3

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.lrqad@deped.gov.ph * blr.lrpd@deped.gov.ph