

# **STEP BY STEP PROCEDURE IN PROBLEM SOLVING**

## STEPS IN PROBLEM-SOLVING:

1. Understand and analyze the problem.
2. Determine the given data/facts.
3. Identify the operations to be used to solve  
the problem.
4. Write the number sentence and solve.
5. Check the answer. Review and look back  
at the answer to satisfy the problem.

# Non-routine Problem

Example:

Liza has ₱1,200. She wants to buy markers that cost ₱47.50 each. After buying as many as she can, how much money will she have left?

## Non-routine Problem

Example:

Liza has ₱1,200. She wants to buy markers that cost ₱47.50 each. After buying as many as she can, how much money will she have left?

Answer:

1. Understand and analyze the problem
  - a. What are the given facts?
    - Total money: ₱1,200
    - Cost per market: ₱47.50
2. Determine the given data/facts
  - a. What is asked?
    - How many markers Liza can buy and the remaining amount.

## Non-routine Problem

Example:

Liza has ₦1,200. She wants to buy markers that cost ₦47.50 each. After buying as many as she can, how much money will she have left?

Answer:

3. Identify the operations to be used and the number sentence.
  - Division to determine how many markers she can buy, then multiplication and subtraction to find the leftover money.
  - $1,200 \div 47.50 = n$ , is the number sentence.

## Non-routine Problem

Example:

Liza has ₦1,200. She wants to buy markers that cost ₦47.50 each. After buying as many as she can, how much money will she have left?

Answer:

4. Solve the problem

a. First, divide:  $1,200 \div 47.50 = \underline{\underline{25.26}}$

- So, Liza can buy **25 markers**

(rounding down to the nearest whole number).

b. Total cost for 25 markers:  $25 \times 47.50 = \underline{\underline{1,187.50}}$

c. Remaining money:  $1,200 - 1,187.50 = \underline{\underline{12.5}}$

Answer: Liza can buy **25 markers** and will have **₦12.50** left.