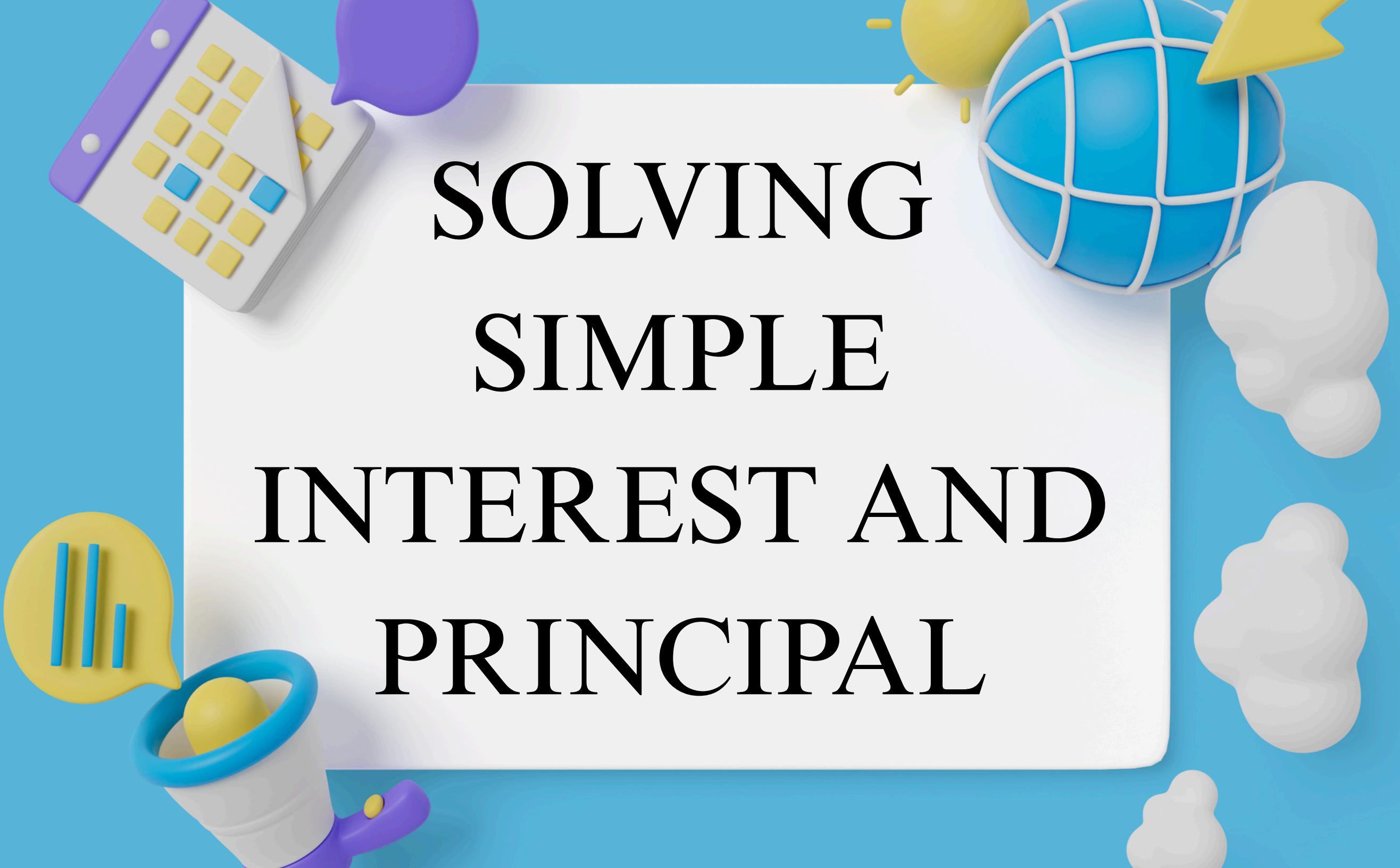
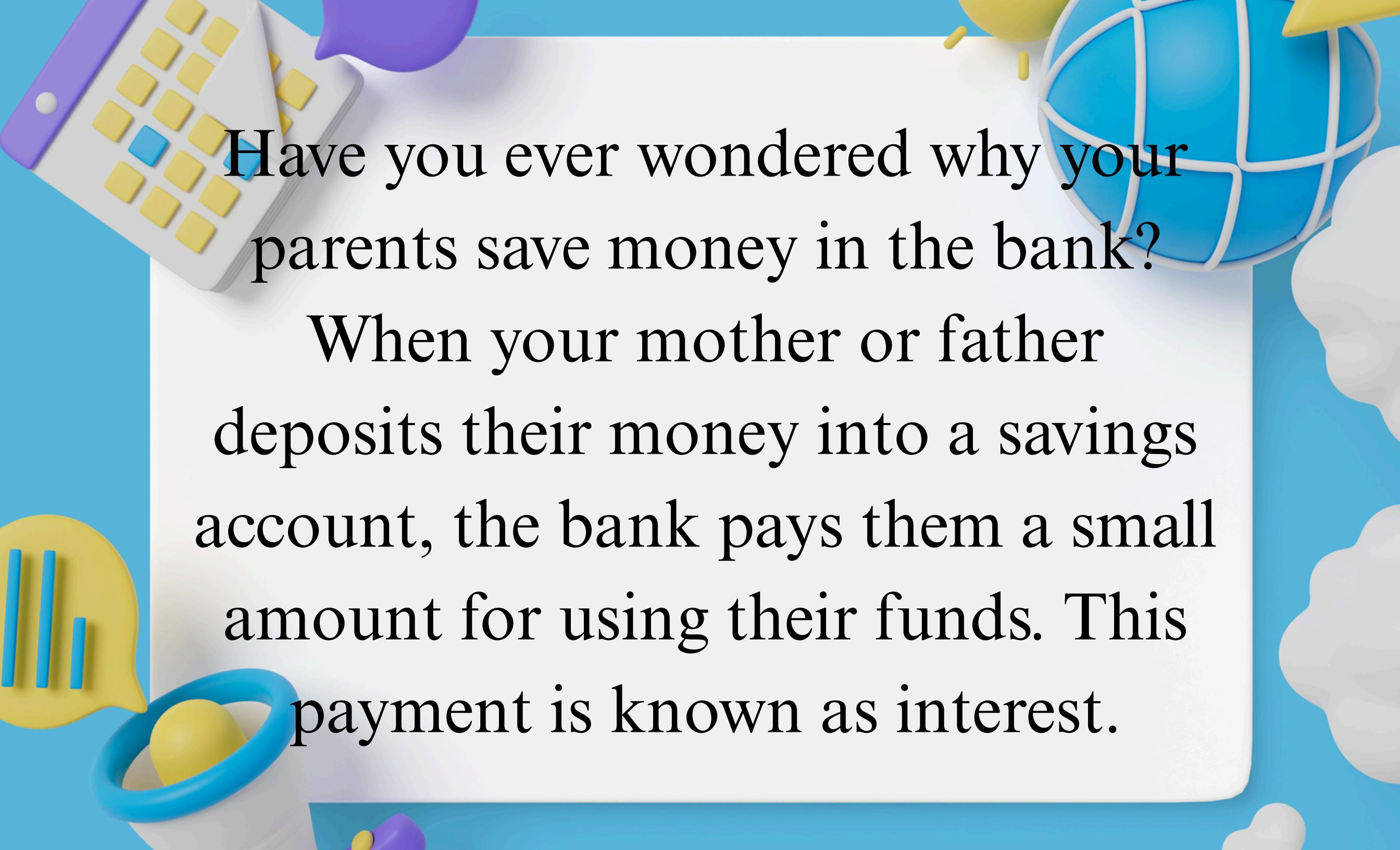


SOLVING SIMPLE INTEREST AND PRINCIPAL





Have you ever wondered why your parents save money in the bank?

When your mother or father deposits their money into a savings account, the bank pays them a small amount for using their funds. This payment is known as interest.

Review the following key terms to better understand this concept:

- **Interest (I)** refers to the money earned from using someone else's funds over a specific period.
- **The principal (P)** is the initial amount of money that is deposited, invested, or borrowed.
- **The rate of interest (R)** is the percentage that is added to the principal amount that has been borrowed or invested.
- **Time (T)** is the duration for which the money has been deposited or borrowed, and it is typically measured in years.
- **The amount due (AD)** is the total amount to be paid or received after a certain period, which includes the principal that has been borrowed or deposited.

Solving for Simple Interest

Example:

Maria invested ₱5,000 in a savings account that earns a simple interest rate of 4% per year.

How much interest will she earn after 1 year?

Solving for Simple Interest

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Maria invested ₱5,000 in a savings account that earns a simple interest rate of 4% per year. How much interest will she earn after 1 year?

Solution:

$$P = \text{₱}5,000.00, R = 4\%, T = 1 \text{ year}, I = ?$$

$$I = P \cdot R \cdot T$$

$$I = \text{₱}5,000.00 \cdot 4\% \cdot 1$$

$$I = \text{₱}5,000.00 \cdot 0.04 \cdot 1$$

$$I = \text{₱}200.00$$

Solving for Simple Interest

Example:

Maria invested ₱5,000 in a savings account that earns a simple interest rate of 4% per year. How much interest will she earn after 1 year?

Solution:

$$I = \text{₱}200.00$$

Answer: Maria earned ₱200.00 from her savings.

Solving for Principal

Example:

Jane borrowed money from a lending company at an interest rate of 8%. After 12 months, she paid an interest of ₱600.00. How much money did she borrow?

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Solution:

$I = \text{₱}600.00$, $R = 8\%$, $T = 12 \text{ months} = 1$, $P = ?$,

Calculation for computing the interest: $P = \frac{I}{R \times T}$

$$\begin{aligned}P &= \frac{I}{R \times T} \\P &= \frac{\text{₱}600.00}{8\% \times 1} \\P &= \frac{\text{₱}600.00}{0.08 \times 1} \\P &= \frac{\text{₱}600.00}{0.08} \\P &= \text{₱}7,500.00\end{aligned}$$

Substitute the given.

Change 8% to decimal.

Multiply $0.08 \times 1 = 0.08$

Solving for Principal

Example:

Jane borrowed money from a lending company at an interest rate of 8%. After 12 months, she paid an interest of ₦600.00. How much money did she borrow?

Solution:

$$P = ₦7,500.00$$

Answer: Jane borrowed ₦7,500.00.