

# AI-01267 Mortgage vs Paid in Full

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⋮ Tags	Investing
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Calculate my monthly mortgage for a PHP8,000,000 loan at 7% interest for 7 years. What is the total amount of interest I paid after 7 years?

To calculate your monthly mortgage payment and total interest paid, we can use the following formula:

$$\text{Monthly Payment} = P * (r * (1+r)^n) / ((1+r)^n - 1)$$

Where:

- P = Principal loan amount (PHP 8,000,000)
- r = Monthly interest rate (7% annual interest rate / 12 months = 0.07/12)
- n = Total number of payments (7 years \* 12 months/year = 84)

## Calculating Monthly Payment:

$$\text{Monthly Payment} = 8000000 * (0.07/12 * (1+0.07/12)^{84}) / ((1+0.07/12)^{84} - 1)$$

Using a calculator or spreadsheet, we find:

$$\text{Monthly Payment} \approx \text{PHP } 120,741.44$$

## Calculating Total Interest Paid:

Total Interest Paid = (Monthly Payment \* Total Number of Payments) - Principal Loan Amount

$$\text{Total Interest Paid} = (120741.44 * 84) - 8000000$$

Calculating this, we get:

$$\text{Total Interest Paid} \approx \text{PHP } 2,142,280.95$$

So, your monthly mortgage payment would be approximately PHP 120,741.44, and you would pay a total of approximately PHP 2,142,280.95 in interest over the 7-year term.

**Calculate my monthly mortgage for a PHP16,000,000 loan at 7% interest for 7 years. What is the total amount of interest I paid after 7 years?**

To calculate your monthly mortgage payment and total interest paid, we can use the following formula:

$$\text{Monthly Payment} = P * (r * (1+r)^n) / ((1+r)^n - 1)$$

Where:

- P = Principal loan amount (PHP 16,000,000)
- r = Monthly interest rate (7% annual interest rate / 12 months = 0.07/12)
- n = Total number of payments (7 years \* 12 months/year = 84)

**Calculating Monthly Payment:**

$$\text{Monthly Payment} = 16000000 * (0.07/12 * (1+0.07/12)^{84}) / ((1+0.07/12)^{84} - 1)$$

Using a calculator or spreadsheet, we find:

**Monthly Payment ≈ PHP 241,482.88**

**Calculating Total Interest Paid:**

Total Interest Paid = (Monthly Payment \* Total Number of Payments) - Principal Loan Amount

$$\text{Total Interest Paid} = (241482.88 * 84) - 16000000$$

Calculating this, we get:

**Total Interest Paid ≈ PHP 4,284,561.90**

So, your monthly mortgage payment would be approximately PHP 241,482.88, and you would pay a total of approximately PHP 4,284,561.90 in interest over the 7-year term.

Conversions:

PHP120741=2,048.19 USD

PHP240,000=4,078.86 USD

PHP2,142,280.95=36,408.58 USD

PHP4,284,561.90=72,817.16 USD

PHP8,000,000=