Step-by-Step Tutorial: How to Calculate Interest Rate

What is the Question Asking?

We need to find: **What interest rate did Poda Company get on their loan from Mtafika Bank?**

Think of it like this: If you borrow money from a bank, the bank charges you a percentage of that money every year as "rent" for using their money. That percentage is called the **interest rate**.

Step 1: Understand What We Need

To calculate interest rate, we need **TWO pieces of information**:

1. **How much money was borrowed** (the loan amount)
2. **How much interest was paid** (the interest expense)

Formula: Interest Rate = (Interest Paid ÷ Amount Borrowed) × 100%

Step 2: Find the Interest Expense (What They Paid)

Look at the **first table** you showed me:

Item	Amount
Interest expenses	250,000

✅ **Interest Expense = 250,000 Tshs**

This means Poda Company paid 250,000 Tshs as interest to the bank in one year.

Step 3: Find the Loan Amount (How Much They Borrowed)

This is the tricky part! The loan amount wasn't clearly shown in the first table, but it's in the **second table** you provided.

Look at the **second table** in the bottom row:

Item	Total Cost	Equity	Loan
Total project cost	14,200	11,000	**3,200**

✅ **Total Loan = 3,200,000 Tshs** (remember, the table shows "000" so 3,200 = 3,200,000)

Step 4: Understand What These Numbers Mean

- **Poda Company borrowed**: 3,200,000 Tshs from Mtafika Bank

- **Poda Company paid back**: 250,000 Tshs as interest in one year
- **We want to find**: What percentage rate is 250,000 out of 3,200,000?

Step 5: Apply the Formula

Formula: Interest Rate = (Interest Expense ÷ Loan Amount) × 100%

Substitute our numbers: Interest Rate = (250,000 ÷ 3,200,000) × 100%

Step 6: Do the Math Step by Step

Step 6a: First, divide 250,000 by 3,200,000

- 250,000 ÷ 3,200,000 = 0.078125

Step 6b: Convert to percentage by multiplying by 100

- 0.078125 × 100 = 7.8125%

Step 6c: Round to a reasonable number of decimal places

- 7.8125% ≈ **7.8%**

Step 7: Check Your Answer

Does this make sense?

- If you borrow 3,200,000 Tshs
- And pay 250,000 Tshs interest per year
- That's about 7.8% per year
- This is a reasonable interest rate for a business loan ✅

Final Answer

The interest rate that Poda Company Limited got from Mtafika Bank Limited is 7.8% per annum.

Key Learning Points

1. **Always identify what you're looking for first** (in this case: interest rate)
2. **Find the two key numbers you need** (interest paid and loan amount)
3. **Use the correct formula** (Interest Rate = Interest Expense ÷ Loan Amount × 100%)
4. **Double-check your answer makes sense** (7.8% is a reasonable business loan rate)

Practice Tip

Remember this formula: **Interest Rate = (Interest Paid ÷ Amount Borrowed) × 100%**

You can use this for any similar problem!