REVISION GUIDE

Loan and Mortgage Formula Reference

A stronger printable reference for loan and mortgage repayment, amortisation logic, interest allocation, and payment comparisons across different terms.

QUICK OVERVIEW

Category: finance business

Includes 1 related guide page.

Links back to 2 calculator tools.

FORMULA HIGHLIGHTS

Repayment formula

payment = P x r / (1 - (1 + r)^-n)

Loan-to-value

LTV = loan / property value x 100

WHAT THIS PACK COVERS

This guide keeps the standard repayment formula, amortisation logic, and practical term trade-offs visible when comparing borrowing options.

CORE RELATIONSHIPS

- payment = P x i / (1 - (1 + i)^(-n))
- interest each period = balance x periodic rate
- principal repaid = payment - interest
- total interest = total payments - original principal

HOW TO READ THE PAYMENT

The payment is not a flat principal slice. It starts interest-heavy and becomes principal-heavy over time as the balance falls.

WORKED EXAMPLE: TERM COMPARISON

Longer terms usually lower the monthly payment while increasing total interest. Shorter terms do the reverse. The right choice therefore depends on affordability and lifetime cost together.

EXTRA-PAYMENT REMINDER

Extra principal paid early usually has an outsized effect because it reduces the balance on which future interest is calculated.

COMMON LIMITS

- Pure formulas do not automatically include fees, insurance, taxes, or future rate changes.

- A payment that fits today may still need stress-testing against changing conditions.