Loan Payment Formula

The monthly payment M for a loan is calculated using the annuity formula:

$$M = \frac{P \cdot r \cdot (1+r)^n}{(1+r)^n - 1}$$

Where:

- M: Monthly payment (the amount to be paid each month)
- P: Principal amount (loan amount) = Price of item − Down payment
- r: Monthly interest rate = $\frac{\text{Annual Interest Rate}}{12 \times 100}$
- n: Total number of payments = Loan term in years × 12