

## Programming Exercise

Data Types, Casting, and the Math Class

Create a program that computes loan payments. The loan can be a car loan, a student loan, or a home mortgage.

The program must satisfy the following requirements:

- It must let the user enter the interest rate, the loan amount, and the number of years for which payments will be made.
- It must compute and display the monthly payment and total payment amount.

Use the formulas below:

$$\text{monthlyPayment} = \frac{\text{loanAmount} \times \text{monthlyInterestRate}}{1 - \frac{1}{(1 + \text{monthlyInterestRate})^{\text{numberOfYears} \times 12}}}$$

$$\text{totalPayment} = \text{monthlyPayment} \times \text{numberOfYears} \times 12$$