

Project 9-1: Monthly Payment Calculator

Create a program that calculates the monthly payments on a loan

Console

```
Monthly Payment Calculator

DATA ENTRY
Loan amount:          500000
Yearly interest rate: 5.6
Years:                30

FORMATTED RESULTS
Loan amount:          $500,000.00
Yearly interest rate: 5.6%
Number of years:      30
Monthly payment:      $2,870.39

Continue? (y/n): y

DATA ENTRY
Loan amount:          500000
Yearly interest rate: 4.3
Years:                30

FORMATTED RESULTS
Loan amount:          $500,000.00
Yearly interest rate: 4.3%
Number of years:      30
Monthly payment:      $2,474.36

Continue? (y/n): n
```

Specifications

- The interest rate should only have one decimal place for both the calculation and the formatted results.
- The formula for calculating monthly payment is:

$$\text{month_payment} = \text{loan_amount} * \text{monthly_interest_rate} / (1 - 1 / (1 + \text{monthly_interest_rate}) ** \text{months})$$

- Use the locale module to ensure the results are formatted for the proper location.
- Use the decimal module and its quantize() method for rounding.
- Assume that the user will enter valid data.
- Save the file with the filename month_payment_XXX.py where XXX is either your initials or your last name.

Hint

- You may find the Future Value program on pp. 264-265 of the textbook to be helpful.