

IT 330

Assignment 1

Spring 2016

Due 4/10/2016 by 11:59pm

Point Totals: 100 Points

Summary

Write a console application mortgage calculator application that calculates the monthly payment for a loan based on the principal, number of years, and interest rate.

Requirements

1. Input the principal, number of years, and interest rate as string variables.
2. Convert each of the variables in the preceding step to double using the Double.TryParse method.
Prompt the user to reenter any illegal input.
3. Compute the monthly payment using this formula:

$$m = \frac{p r / 1200.0}{1 - (1.0 + r / 1200.0)^{-12.0 n}}$$

4. p = principal (dollars), n = number of years, r = interest rate (percent), m = monthly payment (dollars).
Use the .NET static method call Math.pow(x, y) to compute x^y (x raised to the y power).
5. Output the amount of the monthly payment.

Hints

- 1) TempConv1 in the Class 1 examples.
- 2) Test your calculation/output here : <https://www.easycalculation.com/mortgage/loan-payment-amount.php>

Goals

- Make sure your development environment is setup
- Get you to familiarize yourself with Visual Studio
- Implement a basic Console Application that takes in Input from the user, validates it and gives a result

Deliverable

Submit a zip file of your .Net Solution file on D2L using this naming convention: Proj1-Smith.zip (replace Smith by your last name).

Grading Breakdown

- 80 points – Functionality
- 10 points – Code Structure / Comments
- 10 points – Submitted Correctly