SI@UCF: Java Course Homework Assignment: Car Payments

Payment plan program

Write a program that prints out the payment plan for a car. Ask the user to input the original value of the car, the *yearly* interest rate of the loan, and the monthly payment value. Your program should print a chart with a row for each monthly payment. The columns of the chart should be the month (this should be a number), the amount of the payment, and the amount owed after the payment is made. All the numbers in the second column should be the same except for possibly the last value. Also, your program should detect if the monthly payment is too small to ever pay off the loan. If this is the case, simply output an error message instead of the chart. (Note: Assume that the interest charged each month is precisely 1/12 the yearly interest.)

Here is an example output of the program (User input in bold italics, output is plain.)

What is the original value of the car you are buying?

10000

What is the interest rate of the loan, in percent?

12

What is the monthly payment?

500

| Month | Payment | Amount Owed |
|-------|---------|-------------|
| 1 | 500 | 9600 |
| 2 | 500 | 9196 |
| 3 | 500 | 8787.96 |
| ••• | | |
| 23 | 213.48 | 0 |

After you write your function test it thoroughly. In your comments in your program file, discuss how you tested your program and why you think those tests are sufficient to guarantee that your function works.