Math 101, Littlefield

Homework: Consumer Loan Spreadsheet

Starting from scratch, construct an Excel spreadsheet to simulate repayment of a consumer loan. (See "Excel for Algebra, Lesson 03, Consumer Loan Simulation.)

Using your new spreadsheet, answer the following questions:

1. For $1000 principal, at 20% annual interest (0.2), paid back in 12 months, what is the monthly payment?

2. For $1000 principal, paid back in 12 months with a $95 monthly payment, what is the annual interest? Be sure to format this so that it shows at least 3 digits of accuracy, for example 23.4% .

3. At 25% annual interest, paid back in 12 months with a $100 monthly payment, what was the principal?

4. For $1000 principal, at 20% annual interest and a $50 monthly payment, how many months are needed to pay back the loan?

5. For $1000 principal, at 25% annual interest and a $25 monthly payment, how many months are needed to pay back the loan? What is the total amount of interest paid in this case? (Hint: the answer will reveal why credit card companies love minimum payments.)

Hand in:

A. Printouts of your spreadsheet for question 1, showing values and formulas. Force these to print on one page each, and include row/column headers and gridlines.

B. The requested answers for all 5 questions.

Please note: you do <u>not</u> need to construct 5 spreadsheets from scratch for this exercise. Just create 1 spreadsheet from scratch. For the other 4 parts of the assignment, either copy/paste the first spreadsheet and tweak the copies, or tweak the one copy to answer each question, after first making the printouts that I want for question 1.