**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Credit Cards with Excel**

**Situation A**

Suppose you have a $6,000 Fastercard balance and you want to pay it off. You have a 15% annual interest rate that translates into a 1.25% monthly rate. Each month, Fastercard sends you a bill for a $100 minimum payment.

**Use an Excel Spreadsheet to find:**

* The number of months it will take to pay the credit card bill off if you don’t charge anything else;
* The total amount of interest that you pay;
* The total amount of money that you pay; and
* The percent of your payments that goes to interest.

**The spreadsheet should begin like this:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | A | B | C | D | E | F |
| 1 | Month | Starting Principal | Payment | Money Owed After Payment | Interest Charged | Ending Principal |
| 2 | 1 | 6000.00 | 100.00 | =b2-c2 | =d2\*.0125 | =d2+e2 |
| 3 | =a2+1 | =f2 | =c2 |  |  |  |
| 4 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| *Last Three Months* |

**You should fill in the numbers for the first three months and the last three months of the table.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | A | B | C | D | E | F |
| 1 | Month | Starting Principal | Payment | Money Owed After Payment | Interest Charged | Ending Principal |
| 2 | 1 | 6000.00 | 100.00 | 5900.00 | 73.75 | 5973.75 |
| 3 | 2 | 5973.75 |  |  |  |  |
| 4 | 3 |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

**Questions**

1. How many months does it take to pay off the credit card bill?
2. Find the total interest. Add all of the numbers in Column E. You can use a formula to do this. **=sum(e2:*last cell in column e*)**
3. Find the total paid.
4. What percent of the money paid goes to interest under this plan?

**Situation B**

Now suppose you decide that paying $100 per month on this credit card is a bad idea. Repeat the steps you used to find out how much you can save by paying $200 per month instead of $100. Complete the first three and the last three rows of the table.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | A | B | C | D | E | F |
| 1 | Month | Starting Principal | Payment | Money Owed After Payment | Interest Charged | Ending Principal |
| 2 | 1 | 6000.00 | 200.00 | 5800.00 | 72.50 | 5872.50 |
| 3 | 2 | 5872.50 |  |  |  |  |
| 4 | 3 |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

**Questions**

1. How many months does it take to pay off the credit card bill?
2. Find the total interest. Add all of the numbers in Column E. You can use a formula to do this. **=sum(e2:*last cell in column e*)**
3. Find the total paid.
4. What percent of the money paid goes to interest under this plan?

**Situation C**

Now you realize that too much of your hard earned money is going to interest. Although you will have to make sacrifices to do this, you decide to pay this bill off in 12 months. Try using the same spreadsheet with different monthly payments (Column C). You should make a consistent payment, and it should be just large enough to pay the bill in 1 year.

Complete the first three and last three months of the table.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | A | B | C | D | E | F |
| 1 | Month | Starting Principal | Payment | Money Owed After Payment | Interest Charged | Ending Principal |
| 2 | 1 | 6000.00 |  |  |  |  |
| 3 | 2 |  |  |  |  |  |
| 4 | 3 |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

**Questions**

1. Find the total interest.
2. Find the total amount paid.
3. What percent of the money paid goes to interest in this plan?
4. Do you think you could afford to have a $6,000 credit card bill? If not, what line of credit do you think you can afford with your current job (if you have one)?