

The Math of Credit Cards

When you use a credit card to make a purchase, you are borrowing money for a short period of time. Whenever you borrow money, there is a cost. This cost is INTEREST.

Understand your Statement

1. **Balance from Last Statement** - The amount owed from your previous statement
2. **Total Purchases** - Add up the new charges made on the account **not including interest**
3. **Total Interest/Services Charges** - Write in the interest paid from previous bill
4. **Total Cash Advances** - Amount taken from ATM using your credit card
5. **Total Payments/Credit** - Amount paid on last bill
6. **Statement Balance** - Add up #1, 2, 3, 4 to get a total. Subtract #5 from this total to get your final balance.
7. **Credit Limit** - The total amount of money you may spend on your credit card
8. **Minimum Payment Percentage** - The percentage of your **Statement Balance** that you need to pay in order to maintain good credit

Calculating Credit Still Available

- Calculate your **Statement Balance**
- Subtract the **Statement Balance** from the **Credit Limit** (bottom right hand corner)
- The answer is your **Credit Still Available**

Calculating Minimum Payment

- Look on statement to find what the **Minimum Payment Percentage** is
- Convert percentage to a decimal by dividing by 100
- Multiply your **Statement Balance** by the decimal
- The answer is your **Minimum Payment**

Calculating Interest

$$I = PRT$$

I: is the amount of money you owe in interest (\$)

- This is what you are calculating – nothing to fill in here!

P: is the unpaid Statement Balance (\$)

- Look at what you owe on your bill this month

R: is the interest rate of the card (as a decimal)

1. Find your interest rate for purchases -----
2. Turn this percent to a decimal by $\div 100$ -----

<u>Example</u>	
1)	17.5%
2)	$17.5\% \div 100 = 0.175$

T: is the number of days you owe interest on.

- Calculate the number of days interest is paid on. Typical months have 30 days.
- Convert your time into years by dividing by 365 – keep 4 decimal places

<u>Example</u>	
1)	30 days in the month
2)	$30 \div 365 = 0.0822$



Interest Rate: 19.99%

Minimum Payment Rate: 4%

Credit Limit: \$3000

Example 1. Alice has a TD Cash Back credit card. She received her October bill and owes \$2044.38.

a) Calculate her minimum payment.

b) Alice wants to know what her interest charges will be if she can't pay the bill this month. She plans to use the formula $I = PRT$ to do this calculation. Help her decide what numbers to use.

I =

P =

R =

T =

c) Calculate the Interest owed this month.

d) How much credit is still available on this credit card?

Practice



Interest Rate: 19.99%

Minimum Payment Rate: 4%

Credit Limit: \$5000

1. Tony has an RBC Rewards Visa. He received his November bill and owes \$1875.65

a) Calculate his minimum payment.

b) Tony wants to know what his interest charges will be if he can't pay the bill this month. He plans to use the formula $I = PRT$ to do this calculation. Help him decide what numbers to use.

I =

P =

R =

T =

c) Calculate the Interest owed this month.

d) How much credit is still available on this credit card?



Interest Rate: 19.99%

Minimum Payment Rate: 4%

Credit Limit: \$1000

2. Sam has BMO Air Miles Mastercard. He received his December bill and owes \$452.14

a) Calculate his minimum payment.

b) Sam wants to know what his interest charges will be if he can't pay the bill this month. He plans to use the formula $I = PRT$ to do this calculation. Help him decide what numbers to use.

I =

P =

R =

T =

c) Calculate the Interest owed this month.

d) How much credit is still available on this credit card?