

## Assignment 2

- 1- David opened 2 saving accounts in RBC and CIBC. He deposited more money in his RBC account rather than CIBC; however the interest rate in CIBC is greater than RBC. Write a program to input the deposited amount and interest rate for both accounts and then find out after how many years his balance in CIBC would be equal or more than RBC. Also show the balance in both accounts after those many years.

### Sample output

```
Enter CA$ amount deposited in RBC: 1000
Enter CA$ amount deposited in CIBC: 500
Enter the interest rate of RBC: 10
Enter the interest rate of CIBC: 40
```

### Analysis Result

```
-----
After 3 year(s), the balance in CIBC will be >= to RBC.
After 3 year(s), the balance in RBC is CA$ 1331.0
After 3 year(s), the balance in CIBC is CA$ 1372.0
```

- 2- WAP to accept a sentence from the user and then capitalize the first letter of all words in that sentence.

**Note:** to answer the question, you are allowed to use only: loop, charAt, toLowerCase, indexOf, toUpperCase, valueOf, equals, lastIndexOf, equalsIgnoreCase, trim, length, and substring.

### Sample output

```
Enter a sentence: i would be so happy to be able to help you in your studies
```

```
Formatted sentence:
I Would Be So Happy To Be Able To Help You In Your Studies
```

- 3- WAP to accept n from the user and calculate the following expression:

$$\frac{1^2}{2!} + \frac{3^4}{4!} - \frac{5^6}{6!} + \frac{7^8}{8!} - \dots \frac{n^{(n+1)}}{(n+1)!} = ?$$

### Sample output

```
Enter the n
9
Result = -836.7144816468254
```