1. Write a Python program to reverse a number and also find the sum of digits of the number. Prompt the user for input.
2. Write a Python program to find the number of uppercase and lowercase letters in a given text.
3. Write a Python program to replace vowels with ‘\*’ in the given text.
4. Write a Python program to find the value for *sin(x)* up to *n* terms using the series



where ***x*** is in degrees.

1. Write a Python program which takes a positive integer **n** as input and finds the sum of cubes all positive even numbers less than or equal to the number.
2. Given is a list of of words, *wordlist*, and a string, *name.* Write a Python function which takes *wordlist* and *name* as input and returns a tuple. The first element of the output tuple is the number of words in the *wordlist* which have *name* as a substring in it. The second element of the tuple is a list showing the index at which the *name* occurs in each of the words of the *wordlist* and a 0 if it doesn’t occur.
3. Write a Python program to implement the addition, subtraction, and multiplication of complex numbers using classes. Use constructors to create objects. The input to the program consist of real and imaginary parts of the complex numbers.
4. Given two matrices A and B, write a program to find the product of A and BT.
5. Given a file “mark.csv” of student data with the fields rollno, name, branch, m1, m2, m3*,* write python code to
   * Print total marks of all students
   * Find the average mark of each subject
   * Find the student with highest and second highest mark.

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| 1. Write a Python program to check the validity of a password given by the user.   The Password should satisfy the following criteria:   1. Contains at least one letter between **a** and **z** 2. Contains at least one number between **0** and **9** 3. Contains at least one letter between **A** and **Z** 4. Contains at least one special character from **$, #, @** 5. Minimum length of password: **6** | (8) |