1. Make sure you know how to install all these
   - Install python 2.x/3.x [you can also install using anaconda].
   - Install Pycharm IDE/add eclipse pydev or any other IDE
   - Install pip.
   - Update pip using command.
   - Add python interpreter to eclipse /pycharm.
   - Install jyputer notebook.
2. Write a script which can ceil and floor given value without using any python built-tin functions.
3. Python script to swap two integers in single line. [don't use any python built in function]
4. Write a program that asks the user their name, if they enter your name say "That is a nice name", if they enter "John Cleese" or "Michael Palin", tell them how you feel about them ;), otherwise tell them "You have a nice name."[Use ternary operator].
5. A particular retailer is having a 60 percent off sale on a variety of discontinued products. The retailer would like to help its customers determine the reduced price of the merchandise by having a printed discount table on the shelf that shows the original prices and the prices after the discount has been applied. Write a program that uses a loop to generate this table, showing the original price, the discount amount, and the new price for purchases of $4.95, $9.95, $14.95, $19.95 and $24.95. Ensure that the discount amounts and the new prices are rounded to 2 decimal places when they are displayed.
6. (Print a table) Write a program that displays the following table: [do not use ** operator or any python built in function]
   a b pow(a, b)
   1 2 1
   2 3 8
   3 4 81
   4 5 1024
   5 6 15625
7. (Game: lottery) generate a lottery of a three digit number. The program prompts the user to enter a three-digit number and determines whether the user wins according to the following rules:
    1. If the user input matches the lottery number in the exact order, the award is $10,000.
    2. If all the digits in the user input match all the digits in the lottery number, the award is $3,000.
    3. If one digit in the user input matches a digit in the lottery number, the award is $1,000.

8. (Occurrence of max numbers) Write a program that reads integers, finds the largest of them, and counts its occurrences. Assume that the input ends with number 0. Suppose that you entered 3 5 2 5 5 5 0; the program finds that the largest is 5 and the occurrence count for 5 is 4.
   Enter numbers:
   The largest number is 5
   The occurrence count of the largest number is 4
   3 5 2 5 5 5 0

9. write a program to display the following series

```
  *
 * *
 * * *
 * * * *
 * * * * *
```

10. write a program to display the following series

```
1 2 3 4 5 6 7
 2 3 4 5 6 7
  3 4 5 6 7
   4 5 6 7
    5 6 7
     6 7
      7
     6 7
    5 6 7
   4 5 6 7
  3 4 5 6 7
 2 3 4 5 6 7
1 2 3 4 5 6 7
```

11. (Phone keypads) The international standard letter/number mapping found on the telephone is:

1   2   3
   ABC DEF
 4   5   6
GHI JKL MNO
 7   8   9
PQRS TUV WXYZ

A program that prompts the user to enter a phone number as a string. The input number may contain letters. The program translates a letter (upper- or lowercase) to a digit and leaves all other characters intact. Here is a sample run of the program:

Enter a string: 1-800-Flowers
1-800-3569377