Basic Calculation

1. Program to print two different strings “Hello” and “World” in different lines.
2. Program to print two different strings “Hello” and “World” in a single line.
3. Program to add two entered integer values.
4. Program to subtract two entered integer values.
5. Program to multiply two entered integer values.
6. Program to input two integer values and calculate first number raised to the power second number.
7. Program to find the area and perimeter of a rectangle, when the required input (Length and Breadth) are entered by the user.
8. Program to find the area and circumference of a circle, when the radius is entered by the user. However, the user can input radius in integer or float.
9. Program to find the hypotenuse of a right angled triangle, when the base and height are entered by the user.
10. Program to input two numbers and print the swapped values of them.
11. Program to find the number of currency notes of each type (Rs. 2000, Rs. 500 and Rs. 100), when the total number of currency notes counted altogether is minimum and there must be at least a 100 rupee note dispensed. The amount to be withdrawn is to be entered by the user.
12. Program to find whether a triangle is scalene, isosceles, right angled or invalid when the sides of the triangle are entered by the user.
13. Program to find the Simple Interest and the total amount when the Principal, Rate of Interest and Time are entered by the user.
14. Program to find the Compound Interest compounded annually and the total amount when the Principal, Rate of Interest and Time are entered by the user.
15. Program that calculates the number of rectangular tiles required to cover a rectangular floor if the dimensions of the floor and the dimensions of a tile are entered by the user.
16. Program to input the number of overs in a Cricket match and output the maximum runs a player can score in the match. Assume that there are no extra runs or NO balls in the match played. For example, in a 50 over match, the maximum runs scored are 1653.
17. Program to input the number of heads and feet in a farm and identify the number of chickens and goats in the farm. For example, if there are 340 heads and 1,060 feet, there are 150 chickens and 190 goats.

If-else

1. Program to find whether an input number is even or odd.
2. Program to input two numbers and subtract the smaller number from the greater number.
3. A man has certain number of apples.
   If he picks them in a group of 7, he can pick all of them.
   If he picks them in a group of 6, 1 apple is left behind.
   If he picks them in a group of 5, 1 apple is left behind.
   If he picks them in a group of 4, 1 apple is left behind.

If he picks them in a group of 3, 1 apple is left behind.
If he picks them in a group of 2, 1 apple is left behind.
Write a program that identifies the minimum number of apples he has.

if-elif-else

1. Program to find the maximum of the three entered numbers.
2. Program to input the centre of a circle, radius of the circle and an arbitrary point P(x,y) and determine whether the point is inside the circle, on the circle or outside the circle.
3. Big Bazaar specifies its customers into three categories as Bronze, Silver and Gold. If the shopping amount is greater than 25000, the category is **GOLD**. If the shopping amount is between 10000 and 25000, the category is **SILVER**, otherwise the category is **BRONZE**. The discount offered for GOLD customers is 20% of the shopping amount, for SILVER customers is 10% of the shopping amount and 5% otherwise. Design a program in python that asks the user to input the total shopping amount, outputs the category and amount to be paid.
4. Design a program in python to display the number of days left in the current year (2019), when today's date is entered by the user in format of your choice.

Loops

1. Program to find whether an entered number is prime or not.
2. Program to find the factorial of an entered number.
3. Program to find the sum of digits of an entered number.
4. Program to find the series of all three digits Armstrong numbers.
5. Program to display the table of an entered number in the following format:

   2*1=2
   2*2=4
   ……..
   2*10=20
6. There are N kids in a play Group. The kid with number K ($1 \leq K \leq N$) will be happy if he receives at least A_K candies. There is C candies in all.
   The school staff is interested in knowing whether it is possible to make all the N kids happy by giving each kid at least as many candies as he wants, that is, the K^{th} kid should receive at least A_K candies. Each candy can be given to only one kid. Print Yes if it is possible and No otherwise.

   Input

   Input N, C and N integers A_1, A_2, ..., A_N.

   Output

   Yes if it possible to make all kids happy and No otherwise.
7. A teacher enters a classroom of 500 students. All the students were having their mobile phones in ON mode. The teacher asked the students to do the following tasks in the given order:
   - Roll Number 1 shall toggle the mobile phones (ON to OFF and OFF to ON) of all students.

- Roll Number 2 shall toggle mobile phones (ON to OFF and OFF to ON) of all students whose Roll Number is a multiple of 2.
- Roll Number 3 shall toggle mobile phones (ON to OFF and OFF to ON) of all students whose Roll Number is a multiple of 3.
- Roll Number 4 shall toggle mobile phones (ON to OFF and OFF to ON) of all students whose Roll Number is a multiple of 4.
- And so on
- Roll Number 49 shall toggle mobile phones (ON to OFF and OFF to ON) of all students whose Roll Number is a multiple of 49.
- Roll Number 50 shall toggle mobile phones (ON to OFF and OFF to ON) of all students whose Roll Number is a multiple of 50.

Design a program that outputs the Roll number of students whose mobile phone is still in OFF mode.

8. Design a game between user and computer as follows:
    - There are 51 balls in a basket.
    - The user has to pick less than 5 balls from the basket at a time.
    - Each user will be given his/her turn alternately.
    - The user who picks the last ball will lose the game.
    - The first turn is of the user.
    - The computer shall always win.