Day-2 (Assignment)

1. Write a Python program to take two inputs for day, month and then calculate which day of the year, the given date is. For simplicity take 30 days for all months. For example, if you give input as: Day 3, Month: 2, then it should print "Day of the year: 33".
2. Write a Python program that asks a user for a number of years, and then prints out the number of days, hours, minutes, and seconds in that number of years. How many years?
3. Write a Python program to take a 2-digit number and then print the reversed number. That is, if the input given is 25, the program should print 52.
4. Try writing a Python program (similar to the previous one) for a three-digit number, i.e., if your input is 123, the program should print 321.
5. i) Write a Python program to convert degrees Celsius to degrees Fahrenheit.
   ii) Write a Python program to convert degrees Fahrenheit to degrees Celsius.
6. Write a Python program to calculate the distance between two points PQ having three coordinates each using the *Euclidean* distance metric. (Take the points: P(1,2,3); Q(2,1,0)).
7. Write a Python program to calculate the distance between two points PQ having three coordinates each using the *Manhattan* distance metric. (Take the points: P(1,2,3); Q(2,1,0)).
8. Write a Python program to calculate the area and circumference of a circle.
9. Write a Python program to calculate the area of a triangle using Heron's formula.
   Heron's formula is given as: Area of triangle=$(s * (s - a) * (s - b) * (s - c))^{\frac{1}{2}}$ where a, b and c are three sides of the triangle and s=(a+b+c)/2.
10. Write a Python program to swap two numbers without using a temporary variable.

Practice:

1. Write a Python Program to read Height in Centimetres and then convert the Height to Feet and Inches (Round the result up to 2 places of decimal).
2. Write a Python program to swap two numbers using a temporary variable.
3. Write a Python program to compute $(a + b)^3$ using the formula $a^3 + b^3 + 3a^2b + 3ab^2$.