**1.**Write a Python program to read the age of a candidate and determine whether it is eligible for casting his/her own vote.   
Test Data : 21  
*Expected Output* :  
Congratulation! You are eligible for casting your vote.

**2.**Write a Python program to read the value of an integer m and display the value of n is 1 when m is larger than 0, 0 when m is 0 and -1 when m is less than 0.   
Test Data : -5  
*Expected Output* :  
The value of n = -1

**3.** Write a Python program to accept the height of a person in centimeter and categorize the person according to their height.   
Test Data : 135  
*Expected Output* :  
The person is Dwarf.

<140 Dwarf

<140 >170 Average

>170 Tall

**4.**Write a Python program to find the largest of three numbers.   
Test Data : 12 25 52  
*Expected Output* :  
1st Number = 12,        2nd Number = 25,        3rd Number = 52  
The 3rd Number is the greatest among three

**5.**Write a Python program to accept a coordinate point in a XY coordinate system and determine in which quadrant the coordinate point lies.   
Test Data : 7 9  
*Expected Output* :  
The coordinate point (7,9) lies in the First quadrant.

**6.** Write a Python program to find the eligibility of admission for a professional course based on the following criteria:   
Eligibility Criteria : Marks in Maths >=65 and Marks in Phy >=55 and Marks in Chem>=50 and Total in all three subject >=190 or Total in Maths and Physics >=140 -------------------------------------

Input the marks obtained in Physics :65 Input the marks obtained in Chemistry :51 Input the marks obtained in Mathematics :72 Total marks of Maths, Physics and Chemistry : 188 Total marks of Maths and Physics : 137 The candidate is not eligible.  
*Expected Output* :  
The candidate is not eligible for admission.

**7.**Write a Python program to calculate the root of a Quadratic Equation.   
Test Data : 1 5 7  
*Expected Output* :  
Root are imaginary;  
No solution.  
ax^2+bx+c=0

**8.**Write a Python program to read roll no, name and marks of three subjects and calculate the total, percentage and division.   
Test Data :  
Input the Roll Number of the student :784  
Input the Name of the Student :James  
Input the marks of Physics, Chemistry and Computer Application : 70 80 90  
*Expected Output* :  
Roll No : 784  
Name of Student : James  
Marks in Physics : 70  
Marks in Chemistry : 80  
Marks in Computer Application : 90  
Total Marks = 240  
Percentage = 80.00  
Division = First

**9.**Write a Python program to read temperature in centigrade and display a suitable message according to temperature state below :   
Temp < 0 then Freezing weather  
Temp 0-10 then Very Cold weather  
Temp 10-20 then Cold weather  
Temp 20-30 then Normal in Temp  
Temp 30-40 then Its Hot  
Temp >=40 then Its Very Hot  
Test Data :  
42  
*Expected Output* :  
Its very hot.

**10.**Write a Python program to check whether a triangle is Equilateral, Isosceles or Scalene.   
Test Data :  
50 50 60  
*Expected Output* :  
This is an isosceles triangle.

**11.**Write a Python program to check whether a triangle can be formed by the given value for the angles.   
Test Data :  
40 55 65  
*Expected Output* :  
The triangle is not valid.

**12.**Write a Python program to check whether a character is an alphabet, digit or special character.   
Test Data :  
@  
*Expected Output* :  
This is a special character.

**13.**Write a Python program to check whether an alphabet is a vowel or consonant.   
Test Data :  
k  
*Expected Output* :  
The alphabet is a consonant.

**14.**Write a Python program to calculate profit and loss on a transaction.   
Test Data :  
500 700  
*Expected Output* :  
You can booked your profit amount : 200

|  |  |
| --- | --- |
| **Unit** | **Charge/unit** |
| upto 199 | @1.20 |
| 200 and above but less than 400 | @1.50 |
| 400 and above but less than 600 | @1.80 |
| 600 and above | @2.00 |

**15.**Write a program in Python to calculate and print the Electricity bill of a given customer. The customer id., name and unit consumed by the user should be taken from the keyboard and display the total amount to pay to the customer. The charge are as follow :

If bill exceeds Rs. 400 then a surcharge of 15% will be charged and the minimum bill should be of Rs. 100/-

Test Data :  
1001  
James  
800  
*Expected Output* :  
Customer IDNO :1001  
Customer Name :James  
unit Consumed :800  
Amount Charges @Rs. 2.00 per unit : 1600.00  
Surchage Amount : 240.00  
Net Amount Paid By the Customer : 1840.00