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**PYTHON PROGRAMMING**

**DATE OF PERFORMANCE : 10/08/24**

PRACTICAL 1

**Q.1] Write a program to accept a name as input from the user and output the following : “Welcome (name)”**

**Input:**

**a=(input("Enter name")) print("Welcome",a) Output:**



**Q.2] Write a program to accept 2 numbers as input and then display the addition , subtraction , multiplication and division of them**

**Input:**

**a=int(input("Enter first number:")) b=complex(input("Enter second number:")) print("The result of a+b is:",a+b) print("The result of a-b is:",a-b) print("The result of a\*b is:",a\*b) print("The result of a/b is:",a/b)**

**Output:**



**Q.3] Write a program to accept temperature in fahrenheit from user and convert it into Celsius and display it Input: a=int(input("Enter Temperature:")) Cel=(a-32)\*5/9 print("Temperature in Cel is: ",Cel)**

**Output:**



**Q.4] Write a program to accept temperature in celsius from user and convert it into fahrenheit and display it**

**Input: a=int(input("Enter Temperature:")) Fah=a\*9/5+32 print("Temperature in Fahrenheit is: ",Fah)**

**Output:**



**Q.5] Write a program to accept the value a,b and c from the user and find the roots of quadratic equation**

**Input:**

**a=float(input("Enter first number:")) b=float(input("Enter second number:")) c=float(input("Enter third number:")) x=(b\*\*2-4\*a\*c)\*\*(0.5) y1=(-b+x) y2=(-b-x) r1=y1/(2\*a) r2=y2/(2\*a) print("first root: ",r1) print("second root: ",r2)**

**Output:**



**Q.6] Write a program to input the principal amount and number of years from the user and calculate the simple interest.Show interest as well as the total amount Input: r=10 p=int(input("Enter first number:")) n=int(input("Enter second number:")) SI=(p\*n\*r)/100 a=p+SI**

**print("The interest earned is:",SI) print("The total amount is:",a)**

**Output:**



**Q.7] Accept a number from the user and display the square,cube,square root and cube root of the number**

**Input:**

**a=int(input("Enter the number: ")) print("The result of a\*\*2 is:",a\*\*2) print("The result of a\*\*3 is:",a\*\*3) print("The result of a\*\*0.5 is:",a\*\*0.5) print("The result of a\*\*(1/3) is:",a\*\*(1/3))**

**Output:**



**Q.8] Accept a number from the user and display the output of the given equation**

**The given equation is 3x^3+2x+3**

**Input: x=float(input("Value of x: ")) y=3\*(2\*\*x)+(2\*x)+3 print("The value of y is:",y)**

**Output:**



**Q.9] Accept length and breadth from the user and display the perimeter and area of the output**

**Input:**

**x=float(input("Enter the length: ")) y=float(input("Enter the breadth:")) print("The perimeter is:",2\*(x+y)) print("The area is:",x\*y)**

**Output:**



**Q.10] Accept radius from the user and display the circumference and area of the output**

**Input: pi=3.14 r=float(input("Enter the number:")) print("Circumference is (2\*pi\*r):",(2\*pi\*r)) print("area is (pi\*r\*\*2):",pi\*r\*\*2)**

**Output:**



**Q.11] Write a program to swap 2 numbers**

* **Without temporary variable**

**Input: x=12 y=15**

**(x,y)=(y,x) print("x=",x) print("y=",y)**

**Output:**



* **With temporary variable**

**Input:**

**x=int(input("enter first number:")) y=int(input("enter second number:")) z=x x=y**

**y=z print("value of x after swapping:",x) print("value of y after swapping:",y)**

**Output:**

