LAB CYCLE-1

PROGRAM-1

AIM:
Program to print a message.

SOURCE CODE:

```
firstname=input("Enter your first name:")
lastname=input("Enter your last name:")
print(f"Greeting!!! {firstname} {lastname}")
```

OUTPUT:

```
Enter your first name:Almas
Enter your last name:N A
Greeting!!! Almas N A
```

PROGRAM-2

AIM:
Program to print different num datatypes.

SOURCE CODE:

```
a=5
b=3.5
c=2.08j
print("Type of a is:",type(a))
print("Type of b is:",type(b))
print("Type of c is:",type(c))
```

OUTPUT:

```
Type of a is: <class 'int'>
Type of b is: <class 'float'>
Type of c is: <class 'complex'>
```

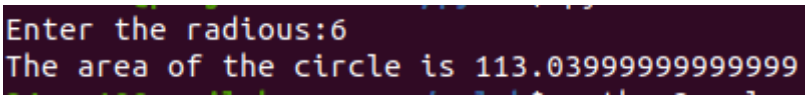
PROGRAM-3

AIM:
Program to find Area of circle.

SOURCE CODE:

```
pi=3.14
r=int(input("Enter the radious:"))
area=pi*r*r
print(f"The area of the circle is {area}")
```

OUTPUT:



PROGRAM-4

AIM:
Program to find Salary of an employee including HRA and TA.

SOURCE CODE:

```
Basic_salary=int(input("Enter the basic salary of the employee"))
HRA=10*Basic_salary/100
TA=5*Basic_salary/100
Total_salary=Basic_salary+HRA+TA
print("Total salary is:",Total_salary)
```

OUTPUT:

```
Enter the basic salary of the employee:23000
Total salary is: 26450.0
```

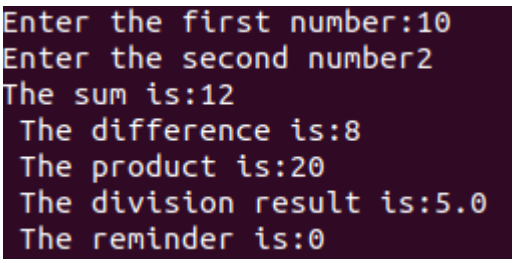
PROGRAM-5

AIM:
Program to perform Arithmetic operations.

SOURCE CODE:

```
a=int(input("Enter the first number:"))
b=int(input("Enter the second number"))
sum=a+b
difference=a-b
product=a*b
div=a/b
mod=a%b
print(f"The sum is:{sum}\n The difference is:{difference}\n The product is:{product}\n The division result is:{div}\n The reminder is:{mod}")
```

OUTPUT



PROGRAM-6

AIM:
Program to print copies of a string.

SOURCE CODE:

```
a=input("Enter the string:")
n=int(input("Enter the number of times:"))
copies=a*n
print("The copies of entered string:",copies)
```

OUTPUT:

```
Enter the string:Almas
Enter the number of times:5
The copies of entered string: AlmasAlmasAlmasAlmasAlmas
```

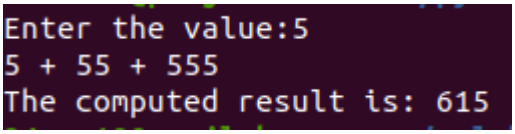
PROGRAM-7

AIM:
Program to accept a integer and compute sum.

SOURCE CODE:

```
n=input("Enter the value:")
print(n,'+',n*2,'+',n*3)
sum=int(n)+int(n*2)+int(n*3)
print("The computed result is:",sum)
```

OUTPUT:



PROGRAM-8

AIM:
Program to find largest of three numbers.

SOURCE CODE:

```
a=int(input("Enter the first nymber:"))
b=int(input("Enter the second number:"))
c=int(input("Enter the third number:"))
if a>b and a>c:
    print(f"{a} is largest")
elif b>a and b>c:
    print(f"{b} is largest")
else:
    print(f"{c} is largest")
```

OUTPUT:

```
Enter the first nymber:4
Enter the second number:5
Enter the third number:6
6 is largest
```

PROGRAM-9

AIM:
Program to check a year is leap year or not.

SOURCE CODE:

```
year=int(input("Enter the year:"))
if year%4==0 and year%100!=0 or year%400==0:
                                    print(f"{year} a leapyear")
else:
    print(f"{year} is not a leap year")
```

OUTPUT:

```
Enter the year:1900
1900 is not a leap year
Enter the year:2024
2024 is a leapyear
Enter the year:2000
2000 is a leapyear
```

PROGRAM-10

AIM:
Program to solve quadratic equations.

SOURCE CODE:

```
import math
a=int(input("Enter first number:"))
b=int(input("Enter second number:"))
c=int(input("Enter third number:"))
d=(b**2)-(4*a*c)
if d==0:
    print("Only one root\n")
    ansr=(-b)/(2*a)
    print("x=",ansr)
elif d>0:
    printf(“Two Roots”)
    sqrtvalue=math.sqrt(d)
    sol1=(-b+sqrtvalue)/2*a
    sol2=(-b-sqrtvalue)/2*a
    print("m=",sol1)
    print("n=",sol2)
else:
    print("Complex root\n")
    real=(-b)/2*a
    sqrtvalue=math.sqrt(abs(d))/(2*a)
    print(f"The roots are complex:{real}+{sqrtvalue}i")
```

OUTPUT:

```
Enter first number:1
Enter second number:2
Enter third number:5
Complex root

The roots are complex:-1.0+2.0i
```

```
Enter first number:1
Enter second number:-2
Enter third number:1
Only one root

x= 1.0
```

```
Enter first number:1
Enter second number:-3
Enter third number:2
Two Roots
m= 2.0
n= 1.0
```

PROGRAM-11

AIM:
Program to determine the ticket rate based on age.

SOURCE CODE:

```
age=int(input("Enter the age:"))
if age<10:
        print("Ticket rate is 7")
elif 10<=age<60:
            print("Ticket rate is 10")
elif age>=60:
          print("Ticket rate is 5")
else:
    print("Invalid age")
```

OUTPUT:

```
Enter the Age:40
The Ticket Rate is 10
```

```
Enter the Age:5
The Ticket Rate is 7
```

```
Enter the Age:78
The Ticket Rate is 5
```