

EX 2

Apple Problem :

INPUT:

```
Weight= input("enter the no of kgs of apple: ")  
rate= input("enter the rate of 1kg of apple: ")  
tot=Weight*rate  
print(tot)
```

OUTPUT:

Enter the no of kgs of apple: 5

Enter the rate of 1 kg of apple: 6

30.0

SIMPLE INTREST PROBLEM

PROGRAM:

```
p=int(input("enter the principal amt"))
r=int(input("enter the rate:"))
t=int(input("enter the time"))
si=p*t*r/100
Print("the Simple interest is:",si)
```

OUTPUT:

Enter the principal amt: 500

Enter the time: 6

Enter the rate: 5

The Simple interest is: 150.0

DISTANCE BETWEEN 2 POINTS:

PROGRAM:

```
x1=int(input("enter x1:"))
x2= int (input("enter x2:"))
y1=int(input("enter y1:"))
y2= int (input("enter y2:"))
d=(((x2-x1)**2+(y2-y1)**2)**(1/2))
Print("The distance between the points is:",d)
```

OUTPUT:

Enter x1: 4

Enter x2: 6

Enter y1: 0

Enter y2; 6

The distance between the points is: 6.324553320336759

BOOK STALL PROBLEM

```
n1=int(input("enter the price of B1 :"))
n2=int(input("enter the price of B2 :"))
n3=int(input("enter the price of B3 :"))
n4=int(input("enter the price of B4 :"))
n5=int(input("enter the price of B5 :"))
Tot= n1+n2+n3+n4+n5
print("Total price of the books :",tot)
Dis=0.05*tot
Totamt=Tot-dis
print("Final price:",Totamt)
```

OUTPUT:

```
enter the price of B1 : 20
enter the price of B1 : 20
enter the price of B1 : 20
enter the price of B1 : 40
enter the price of B1 : 10
Total price of books : 110
Final price: 104.5
```

ARITHMETIC OPERATIONS :

PROGRAM:

```
a=int(input("enter A:"))
b=int(input("enter B:"))
s=a+b
f=a-b
c=a/b
d=a*b
print("sum=",s)
print("diff=",f)
print("product=",d)
print("divide=",c)
```

OUTPUT:

Enter A: 50

Enter B: 10

Sum=60

Diff=40

Product=500

Divide=5

CIRCULATING NUMBERS

PROGRAM:

```
s=int(input("Enter a the Values in the List :"))  
list=[]  
for i in range(0,s):  
    element=int(input("Enter the Value :"))  
    list.append(element)  
print("Circulating the list")  
for i in range(0,s):  
    element_deleted=list.pop(0)  
    list.append(element_deleted)  
print(list)
```

OUTPUT:

```
Enter a the Values in the List :3  
Enter the Value :5  
Enter the Value :9  
Enter the Value :2  
Cieculating the elements of the list [5,9,2]  
[9,2,5]  
[2,5,9]  
[5,9,2]
```

CIRCULATING NUMBERS

METHOD 2:

PROGRAM:

```
def circulate(c,n):  
    for i in range (1,n+1):  
        d=c[i:]+c[:i]  
        print("Circulate", "=",d)  
    return c=[178,289,324,448,570,698,188,842,956,106]  
    n=int(input("Enter n :"))  
    circulate (c,n)
```

OUTPUT:

Enter n :6

Circulate = [289, 324, 448, 570, 698, 188, 842, 956, 106, 178]

Circulate = [324, 448, 570, 698, 188, 842, 956, 106, 178, 289]

Circulate = [448, 570, 698, 188, 842, 956, 106, 178, 289, 324]

Circulate = [570, 698, 188, 842, 956, 106, 178, 289, 324, 448]

Circulate = [698, 188, 842, 956, 106, 178, 289, 324, 448, 570]

Circulate = [188, 842, 956, 106, 178, 289, 324, 448, 570, 698]

SWAPPING

METHOD 1:

PROGRAM

```
x=int(input("enter value of x:"))  
y= int(input("enter value of y:"))  
print("Before Swapping:",x,y)  
  
c=x  
x=y  
y=c  
print("After swapping:",x,y)
```

OUTPUT:

Enter value of x: 5

Enter value of y: 6

Before Swapping 5,6

After Swapping 6,5

METHOD 2:

PROGRAM:

```
s = 10`  
t = 20  
print("The values before Swapping : ",s,t)  
s, t = s, t  
print("The values after Swapping : ",s,t)
```

OUTPUT:

The values before Swapping: 10 20

The values after Swapping: 20 10

METHOD 3:

PROGRAM:

```
x = 35
y = 15
print("Values before Swap",x,y)
x = x + y
y = x - y
x = x - y
print("Values after Swap",x,y)
```

OUTPUT:

Values before swap 35 15

Values after swap 15 35

TEMPERATURE CONVERSION:

PROGRAM:

```
F= int (input("enter the Fahrenheit :"))  
C= ((Fahrenheit-32)*5)/9.  
print("Temperature in Celsius is: ",C);
```

OUTPUT:

Enter the fahrenheit: 50

Temparature in celsius: 10

PRIMENUMBER:

PROGRAM:

```
g=int(input("Enter the Value of a :"))
i=2
for i in range(2,g):
    if g%i==0:
        print("The Given Number is NOT PRIME ")
        break
    else:
        print("The Given Number is PRIME")
```

OUTPUT:

Enter the Value of a :5678

The Given Number is NOT PRIME

LEAP YEAR:

PROGRAM

```
Year=int(input("Enter the Year :"))
if(Year%4==0):
    if(Year%100==0):
        if(Year%400==0):
            print("The given Year is Leap Year")
        else:
            print("The given Year is not a Leap Year")
```

OUTPUT:

Enter the Year :20000

The given Year is Leap Year