

## **PYTHON PROGRAM USING SIMPLE STATEMENTS AND EXPRESSIONS**

### **ARITHMETIC OPERATION :-**

#### **PROGRAM:-**

```
num 1=int(input("Enter first number:"))  
num 2=int(input("Enter second number:"))  
print("Addition:",num 1+ num 2)  
print("Subtraction:",num 1-num 2)  
print("Multiplication:",num 1*num2)  
print("Division:",num 1/num 2)
```

#### **OUTPUT:-**

Enter first number :1

Enter second number :2

Addition :3

Subtraction : -1

Multiplication :2

Division :0.5

## **PYTHON PROGRAM USING SIMPLE STATEMENTS AND EXPRESSIONS**

### **SWAPPING OF VALUES:-**

#### **PROGRAM:-**

##### **METHOD 1**

```
p = int(input("Enter the First Value :"))
q = int(input("Enter the Second Value :"))
print("The values before swapping are",p,q)
temp = p
p = q
q = temp
print("The Values after swapping are",p,q)
```

#### **OUTPUT:-**

Enter the First Value :48

Enter the Second Value :52

The values before swapping are 48 52

The Values after swapping are 52 48

## **PYTHON PROGRAM USING SIMPLE STATEMENTS AND EXPRESSIONS**

### **SWAPPING OF VALUES:-**

#### **METHOD:-2[USING COMMA (,) OPERATOR]**

#### **PROGRAM:-**

```
s = 59  
t = 16  
print("The values before Swapping : ",s,t)  
s, t = s, t  
print("The values after Swapping : ",s,t)
```

#### **OUTPUT:-**

The values before Swapping : 59 16

The values after Swapping : 59 16

## **PYTHON PROGRAM USING SIMPLE STATEMENTS AND EXPRESSIONS**

### **SWAPPING OF VALIES :-**

#### **METHOD:-3[USING ARITHMETIC OPERATOR]**

#### **PROGRAM:-**

**x = 45**

**y = 25**

**print("The Values before Swapping are",x,y)**

**x = x + y**

**y = x - y**

**x = x - y**

**print("The Values after Swapping are",x,y)**

#### **OUTPUT:-**

**The Values before Swapping are 45 25**

**The Values after Swapping are 25 45**

**PYTHON PROGRAM USING SIMPLE STATEMENTS AND  
EXPRESSIONS**

**METHOD 4 USING XOR OPERATOR:-**

**PROGRAM:-**

**j = 58**

**k = 46**

**Mprint("The Values before Swapping are",j,k)**

**j = j ^ k**

**k = j ^ k**

**j = j ^ k**

**print("The Values after Swapping are",j,k)**

**OUTPUT:-**

**The Values before Swapping are 58 46**

**The Values after Swapping are 46 58**

## **PYTHON PROGRAM USING SIMPLE STATEMENTS AND EXPRESSIONS**

### **DISTANCE BETWEEN TWO POINTS:-**

#### **PROGRAM:-**

```
x1=int(input("Enter the Value of x1 :"))
x2=int(input("Enter the Value of x2 :"))
y1=int(input("Enter the Value of y1 :"))
y2=int(input("Enter the Value of y2 :"))
D1=(x2-x1)**2
D2=(y2-y1)**2
result=(D1+D2)**0.5
print("Distance between",(x1,x2),"and",(y1,y2),"is : ",result)
```

#### **OUTPUT:-**

```
Enter the Value of x1 :2
Enter the Value of x2 :6
Enter the Value of y1 :4
Enter the Value of y2 :7
Distance between (2, 6) and (4, 7) is : 5.0
```

## **PYTHON PROGRAM USING SIMPLE STATEMENTS AND EXPRESSIONS**

### **FIND THE WEIGHT AND COST OF APPLE:-**

#### **PROGRAM:-**

**Cost = int(input("Enter the cost of 1kg of apple:"))**

**Weight = int(input("Enter the weight (in kg):"))**

**Total = cost\*weight**

**Print("the total cost of apple is :",total))**

#### **OUTPUT:-**

**Enter the cost of 1kg of apple :150**

**Enter the weight of the apple bought :2**

**Amount to be paid is 300**

**PYTHON PROGRAM USING SIMPLE STATEMENTS AND  
EXPRESSIONS**

**TO FIND THE TOTAL OF BOOKS AND TO GIVE 5% DISCOUNT ON  
USING PYTHON PROGRAM:-**

**PROGRAM:-**

```
N1= int(input("Enter price of book 1:"))
N2= int(input("Enter price of book 2:"))
N3= int(input("Enter price of book 3:"))
N4= int(input("Enter price of book 4:"))
N5= int(input("Enter price of book 5:"))

Total = n1+n2+n3+n4+n5

Print("The total price of the books :",Total)
Print("5% of discount on 5 books ")
Discount=0.05*total
Total amount= Total – Discount
Print("Total price after discount is :",Total amount)
```

**OUTPUT:-**

```
Enter price of book 1:-500
Enter price of book 2:-200
Enter price of book 3:-150
Enter price of book 4:-350
Enter price of book 5:-400

The total price of books :-1600

5% discount on 5 books

The total price after discount is :-1520.0
```



**PYTHON PROGRAM USING SIMPLE STATEMENTS AND  
EXPRESSIONS**

**CONVERT CELSIUS TO FAHRENHEIT**

**PROGRAM:-**

**F = int(input("Enter the temperature in Fahrenheit :"))**

**Celsius = 5/9\*(F-32)**

**Print ("Fahrenheit into Celsius is :",Celsius)**

**OUTPUT:-**

**Enter the temperature in Fahrenheit :100**

**Fahrenheit into Celsius is :23.55555556**

**PYTHON PROGRAM USING SIMPLE STATEMENTS AND  
EXPRESSIONS**

**CALCULATE SIMPLE INTEREST**

**PROGRAM:-**

**P = int(input("Enter the value of p:"))**

**R = int(input("Enter the value of R:"))**

**T = int(input("Enter the value of T:"))**

**Simple Interest =  $P \times R \times T / 100$**

**Print ("The simple interest is :", simple interest )**

**Print ("Total amount you get , "T," years is:" P +simple interest)**

**OUTPUT:-**

**Enter the value of P : 20000**

**Enter the value of R : 12**

**Enter the value of T : 4**

**The simple interest is :9600.0**

**Total amount you get after 4 years is : 29600.0**

**PYTHON PROGRAM USING SIMPLE STATEMENTS AND  
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**CIRCULATING THE VALUES (METHOD-1 Using Inbuilt function)**

**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(" The Circulated list after",i+1,"rotation",list)
```

**OUTPUT:-**

**Enter a the Values in the List :8**

**Enter the Value :5**

**Enter the Value :9**

**Enter the Value :2**

**Enter the Value :1**

**Enter the Value :7**

**Enter the Value :0**

**Enter the Value :3**

**Enter the Value :2**

**Circulating the list**

**The Circulated list after 1 rotation [9, 2, 1, 7, 0, 3, 2, 5]**

**PYTHON PROGRAM USING SIMPLE STATEMENTS AND  
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**\_The Circulated list after 2 rotation [2, 1, 7, 0, 3, 2, 5, 9]**

**The Circulated list after 3 rotation [1, 7, 0, 3, 2, 5, 9, 2]**

**The Circulated list after 4 rotation [7, 0, 3, 2, 5, 9, 2, 1]**

**The Circulated list after 5 rotation [0, 3, 2, 5, 9, 2, 1, 7]**

**The Circulated list after 6 rotation [3, 2, 5, 9, 2, 1, 7, 0]**

**The Circulated list after 7 rotation [2, 5, 9, 2, 1, 7, 0, 3]**

**The Circulated list after 8 rotation [5, 9, 2, 1, 7, 0, 3, 2]**

**PYTHON PROGRAM USING SIMPLE STATEMENTS AND  
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**CIRCULATING THE VALUES (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]

**PYTHON PROGRAM USING SIMPLE STATEMENTS AND  
EXPRESSIONS**

**PRIME NUMBER OR NOT:-**

**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

**PYTHON PROGRAM USING SIMPLE STATEMENTS AND  
EXPRESSIONS**

**PROGRAM TO FIND THE GIVEN YEAR IS LEAP YEAR OR NOT:-**

**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.