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:-

$N_{1=}$ int(input("Enter price of book 1:"))

$N_{2=}$ int(input("Enter price of book 2:"))

N_3= int(input("Enter price of book 3:"))

N_4= int(input("Enter price of book 4:"))

N_5= int(input("Enter price of book 5:"))

Total = $n_{1+}n_2+n_{3+}n_4+n_5$

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 Interset = P*R*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 EXPRESSIONS

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 EXPRESSIONS

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 EXPRESSIONS

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%2==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.
```