PYTHON PROGRAM USING SIMPLE STATEMENTS AND EXPRESSIONS

ARITHMETIC OPERATION :-

PROGRAM:-

```
a = int (input (“ Enter a number 1 “))
b = int (input (“ Enter a number 2 “))
sum = a + b
difference = a – b
product = a * b
quotient = a / b
floor_division = a//b
modulus = a % b
power = a ** b
print (“ The sum of numbers is “ , sum )
print (“ The difference of numbers is “ , difference )
print (“ The product of numbers is “ , product )
print (“ The quotient  of numbers is “ , quotient )
print (“ The floor division of numbers is “ , floor_division )
print (“ The modulus  of numbers is “ , ,modulus )
print (“ The power of numbers is “ , power )
```

OUTPUT:-

Enter a number 1 21

Enter a number 2 3

The sum of numbers is 24

The difference of numbers is 18

The product of numbers is 63

The quotient of numbers is 7.0

The floor division of numbers is 0

The power of numbers is 9361

PYTHON PROGRAM USING SIMPLE STATEMENTS AND EXPRESSIONS

SWAPPING OF VALIES :-

PROGRAM:-

METHOD 1

```
a = int(input("Enter a value :"))
b = int(input("Enter b Value :"))

c = a
a = b
b = c
print("The swapped values of the numbers a : ", a , " & b : " , b )
```

OUTPUT:-

```
Enter a value :10
Enter b value :6
The swapped values of the numbers
a : 6 & b : 10
```

PYTHON PROGRAM USING SIMPLE STATEMENTS AND EXPRESSIONS

SWAPPING OF VALIES :-

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

PROGRAM:-s

```
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

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METHOD:-3[USING ARITHMETIC OPERATOR]

PROGRAM:-

```
a = int (input (“ Enter a value”))
b = int (input (“ Enter b value”))
a = a + b
b = a - b
a = a – b
print (“ Value of a is “ , a ,” and the value of b is “, b)
```

OUTPUT:-

```
Enter a value 10
Enter b value 6
Value of a is 6 and the value of b is 10
```

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 :"))
d = ((( x2 – x1 ) ** 2 ) + (( y2 – y1) ** 2 )) ** ( ½)
print("The Distance between 2 points  is “ , d )
```

OUTPUT:-

```
Enter the Value of x1  :  2
Enter the Value of x2  :  5
Enter the Value of y1  :  4
Enter the Value of y2  :  8
The Distance between 2 point is : 5.0
```

PYTHON PROGRAM USING SIMPLE STATEMENTS AND EXPRESSIONS

FIND THE WEIGHT AND COST OF APPLE:-

PROGRAM:-

```
c = int(input("Enter the cost of 1kg of apple:"))
w = int(input("Enter the weight (in kg):"))
a = c * w
print("Amount to be payed is ", a))
```

OUTPUT:-

```
Enter the cost of 1kg of apple : 50
Enter the weight of apples bought : 5
Amount to be payed is 250
```

PYTHON PROGRAM USING SIMPLE STATEMENTS AND EXPRESSIONS

TO FIND THE TOTAL OF BOOKS AND TO GIVE 5% DISCOUNT ONUSING 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 = $n_{1+}n_2+n_{3+}n_4+n_5$

Discount=0.05*total

Total amount = Total – Discount

print("The total price of the books :",Total)

print("5% of Discount on 5 books is")

print("Total price after discount is :",Total amount)

OUTPUT:-

Enter price of book 1: 100

Enter price of book 2: 200

Enter price of book 3: 300

Enter price of book 4: 400

Enter price of book 5: 500

The total price of books : 1500

5% Discount on 5 books is 75.0

The total price after discount is : 1425.0

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 :41
Fahrenheit into Celsius is :5
```

PYTHON PROGRAM USING SIMPLE STATEMENTS AND EXPRESSIONS

CALCULATE SIMPLE INTEREST

PROGRAM:-

```
P = int(input(“ Principal  amount:”))
R = int(input(“Rate of interest :”))
T = int(input(“Time period :”))
simple Interset = P*R*T/100
print (“The simple interest is :”, simple interest )
print (“Total amount you get after ,”T,” years is:” P +simple interest)
```

OUTPUT:-

```
Principal amount: 10000
Rate of interest : 3
Time period : 5
The simple interest is : 1500.0
Total amount you get after  years is : 11500.0
```

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 :5
Enter the Value : 5
Enter the Value : 9
Enter the Value :2
Enter the Value :1
Enter the Value :7
Circulating the list
The Circulated list after 1 rotation  [ 7 , 5 , 9 , 2 , 1]
The Circulated list after 1 rotation  [ 1 , 7 , 5 , 9 , 2]
The Circulated list after 1 rotation  [ 2 , 1 , 7 , 5 , 9]
The Circulated list after 1 rotation  [ 9 , 2 , 1 , 7 , 5]
The Circulated list after 1 rotation  [ 5 , 9 , 2 , 1 , 7]
```

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:-

```
num = int (input (“ Enter a number “))
if num > 1 :
        for i in range ( 2 ,num):
                if (num % i) == 0:
        print(num, “ is not a prime number”)
        break
        else:
                print(num, “ is a prime number”)
else:
        print(num, “ is not a prime number”)
```

OUTPUT:-

```
Enter a number: 23
23 is not a prime  number
```

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):
    print("The given Year is Leap Year")
elif(Year%100==0):
    print("The given Year is Leap Year")
elif(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.
```

PYTHON PROGRAM USING SIMPLE STATEMENTS AND EXPRESSIONS