

ASSIGNMENT 1

#Author – Soumitra Das

Date - 15/12/2022

#1. Write a program to enter two numbers and find their sum.

```
num1=int(input("Enter a value of num1: "))  
num2=int(input("Enter a value of num2: "))  
add=num1+num2  
print("The addition of {} and {} is = {}".format(num1,num2,add))
```

OUTPUT

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python> &  
C:/Users/SOUMITRA/AppData/Local/Programs/Python/Python310/python.exe  
c:/Users/SOUMITRA/OneDrive/Desktop/Python/Assignment1/add.py
```

Enter a value of num1: 58

Enter a value of num2: 32

The addition of 58 and 32 is = 90

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python>
```

#Author – Soumitra Das

Date - 15/12/2022

#2. Write a program to enter two numbers and perform all arithmetic operations.

```
num1=int(input("Enter a value of num1: "))  
num2=int(input("Enter a value of num2: "))  
add=num1+num2  
sub=num1-num2  
mul = num1*num2
```

```
dibi=float(num1/num2)
```

```
mod=num1%num2
```

```
print("The addition of {} and {} is = {}\n\nThe subtraction of {} and {} is = {}\n\nThe multiplication of {} and {} is = {}\n\nThe division of {} and {} is = {}\n\nThe Remainder Of {} and {} is = {}".format(num1,num2,add,num1,num2,sub,num1,num2,mul,num1,num2,dibi,num1,num2,mod))
```

OUTPUT

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python> &
C:/Users/SOUMITRA/AppData/Local/Programs/Python/Python310/python.exe
c:/Users/SOUMITRA/OneDrive/Desktop/Python/Assignment1/arithmetic.py
```

Enter a value of num1: 5

Enter a value of num2: 9

The addition of 5 and 9 is = 14

The subtraction of 5 and 9 is = -4

The multiplication of 5 and 9 is = 45

The division of 5 and 9 is =0.5555555555555556

The Remainder Of 5 and 9 =5

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python>
```

#Author – Soumitra Das

Date - 15/12/2022

#3. Write a program to enter length and breadth of a rectangle and find its area.

```
len=int(input("Enter a value of a length of a rectangle : "))
```

```
bread=int(input("Enter a value of a breadth of a rectangle : "))
```

```
area=int(len*bread)
```

```
peri=2*(len+bread)
```

```
print("Area = {}\nPerimeter = {}".format(area,peri))
```

OUTPUT

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python> &
C:/Users/SOUMITRA/AppData/Local/Programs/Python/Python310/python.exe
c:/Users/SOUMITRA/OneDrive/Desktop/Python/Assignment1/rectangle.py
```

Enter a value of a length of a rectangle : 58

Enter a value of a breadth of a rectangle : 32

Area = 1856

Perimeter = 180

PS C:\Users\SOUMITRA\OneDrive\Desktop\Python>

#Author – Soumitra Das

Date - 15/12/2022

#4. Write a program to enter radius of a circle and find its diameter, circumference and area.

```
r=int(input("Enter a radius of a circle: "))
```

```
d=2*r
```

```
area=3.14*r*r
```

```
peri=d*3.14
```

```
print("The area of circle is = {}\nThe perimeter of a circle is= {}".format(area,peri))
```

OUTPUT

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python> &  
C:/Users/SOUMITRA/AppData/Local/Programs/Python/Python310/python.exe  
c:/Users/SOUMITRA/OneDrive/Desktop/Python/Assignment1/circle.py
```

Enter a radius of a circle: 5

The area of circle is = 78.5

The perimeter of a circle is= 31.400000000000002

PS C:\Users\SOUMITRA\OneDrive\Desktop\Python>

#Author – Soumitra Das

Date - 15/12/2022

#5. Write a program to enter length in centimeter and convert it into meter and kilometer.

```
length=int(input("Enter length in centimeter: "))
```

```
meter=length/100
```

```
kilometer=length/100000
```

```
print("Length in meter is {} and kilometer is {}".format(meter,kilometer))
```

OUTPUT

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python> &  
C:/Users/SOUMITRA/AppData/Local/Programs/Python/Python310/python.exe  
c:/Users/SOUMITRA/OneDrive/Desktop/Python/Assignment1/length.py
```

Enter length in centimeter: 500

Length in meter is 5.0 and kilometer is 0.005

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python>
```

#Author – Soumitra Das

Date - 15/12/2022

#6. Write a program to enter temperature in Celsius and convert it into Fahrenheit.

```
temc = float(input("Enter temperature in Celsius : "))
```

```
F = (9*temc+160)/5
```

```
print("{} is a Celsius temperature and its equivalent Fahrenheit temperature is =  
{}".format(temc,F))
```

OUTPUT

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python> &  
C:/Users/SOUMITRA/AppData/Local/Programs/Python/Python310/python.exe  
c:/Users/SOUMITRA/OneDrive/Desktop/Python/Assignment1/TemperatureF.py
```

Enter temperature in Celsius : 100

100.0 is a Celsius temperature and its equivalent Fahrenheit temperature is =
212.0

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python>
```

#Author – Soumitra Das

Date - 15/12/2022

#7. Write a program to enter temperature in Fahrenheit and convert to Celsius.

```
temf = float(input("Enter temperature in Fahrenheit : "))
```

```
c = (5*temf - 160)/9
```

```
print("{} is a Fahrenheit temperature and its equivalent Celsius temperature is =  
{}".format(temf,c))
```

OUTPUT

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python> &
C:/Users/SOUMITRA/AppData/Local/Programs/Python/Python310/python.exe
c:/Users/SOUMITRA/OneDrive/Desktop/Python/Assignment1/TemperatureC.py
```

Enter temperature in Fahrenheit : 32

32.0 is a Fahrenheit temperature and its equivalent Celsius temperature is = 0.0

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python>
```

#Author – Soumitra Das

Date - 15/12/2022

#8. Write a program to convert days into years, weeks and days.

```
d = int(input("Enter a Days : "))
```

```
y = int(d/365)
```

```
r = d%365
```

```
w = int(r/7)
```

```
d1 = int(r%7)
```

```
print("{} days are equivalent to {} years , {} weeks and {} days".format(d,y,w,d1))
```

OUTPUT

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python> &
C:/Users/SOUMITRA/AppData/Local/Programs/Python/Python310/python.exe
c:/Users/SOUMITRA/OneDrive/Desktop/Python/Assignment1/Days.py
```

Enter a Days : 450

450 days are equivalent to 1 years , 12 weeks and 1 days

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python>
```

#Author – Soumitra Das

Date - 15/12/2022

#9. Write a program to find power of any number x^y .

```
import math
```

```
x = int(input("Enter a value of x : "))
```

```
y = int(input("Enter a value of y : "))
```

```
power = pow(x,y)
```

```
print("Power of {}^{} is {}".format(x,y,power))
```

OUTPUT

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python> &
C:/Users/SOUMITRA/AppData/Local/Programs/Python/Python310/python.exe
c:/Users/SOUMITRA/OneDrive/Desktop/Python/Assignment1/power.py
```

Enter a value of x : 2

Enter a value of y : 10

Power of 2^{10} is 1024

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python>
```

#Author – Soumitra Das

Date - 15/12/2022

#10. Write a program to enter any number and calculate its square root.

```
import math
num = int(input("Enter a number: "))
root = math.sqrt(num)
print("The square root of {} is {}".format(num,root))
```

OUTPUT

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python> &
C:/Users/SOUMITRA/AppData/Local/Programs/Python/Python310/python.exe
c:/Users/SOUMITRA/OneDrive/Desktop/Python/Assignment1/squareroot.py
```

Enter a number: 7225

The square root of 7225 is 85.0

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python>
```

#Author – Soumitra Das

Date - 15/12/2022

#11. Write a program to enter two angles of a triangle and find the third angle.

```
a1 = int (input("Enter a first angle of triangle : "))
a2 = int (input("Enter a second angle of a triangle : "))
a3 = 180 - (a1+a2)
print("The third angle of triangle is : {}".format(a3))
```

OUTPUT

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python> &
C:/Users/SOUMITRA/AppData/Local/Programs/Python/Python310/python.exe
c:/Users/SOUMITRA/OneDrive/Desktop/Python/Assignment1/triangle.py
```

Enter a first angle of triangle : 60

Enter a second angle of a triangle : 45

The third angle of triangle is : 75

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python>
```

#Author – Soumitra Das

Date - 15/12/2022

#12. Write a program to enter base and height of a triangle and find its area.

```
b = int (input("Enter a value of base of triangle : "))
```

```
h = int (input("Enter a value of height of triangle : "))
```

```
area = float(1/2*b*h)
```

```
print("The area of a triangle is = {}".format(area))
```

OUTPUT

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python> &
C:/Users/SOUMITRA/AppData/Local/Programs/Python/Python310/python.exe
c:/Users/SOUMITRA/OneDrive/Desktop/Python/Assignment1/trianglearea.py
```

Enter a value of base of triangle : 5

Enter a value of height of triangle : 6

The area of a triangle is = 15.0

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python>
```

#Author – Soumitra Das

Date - 15/12/2022

#13. Write a program to calculate area of an equilateral triangle.

```
import math
```

```
a = int (input("Enter a value of sides of a triangle : "))
```

```
area = float((math.sqrt(3))*a*a/4)
```

```
print("The area of an equilateral triangle is = {}".format(area))
```

OUTPUT

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python> &  
C:/Users/SOUMITRA/AppData/Local/Programs/Python/Python310/python.exe  
c:/Users/SOUMITRA/OneDrive/Desktop/Python/Assignment1/area.py
```

Enter a value of sides of a triangle : 7

The area of an equilateral triangle is = 21.217622392718745

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python>
```

#Author – Soumitra Das

Date - 15/12/2022

#14. Write a program to enter marks of five subjects and calculate total, average and percentage.

```
sub1 = int(input("Enter marks of CP = "))  
sub2 = int (input("Enter a marks of DS = "))  
sub3 = int (input("Enter a marks of Python = "))  
sub4 = int (input("Enter a marks of Algo = "))  
sub5 = int (input("Enter a marks of CSO = "))  
total = sub1+sub2+sub3+sub4+sub5  
ave = float(total/5)  
per = float(total/500*100)  
print("Total marks is = {} \n Average marks is = {} \n The Percentage is =  
{ }".format(total,ave,per))
```

OUTPUT

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python> &  
C:/Users/SOUMITRA/AppData/Local/Programs/Python/Python310/python.exe  
c:/Users/SOUMITRA/OneDrive/Desktop/Python/Assignment1/marks.py
```

Enter marks of CP = 78

Enter a marks of DS = 82

Enter a marks of Python = 91

Enter a marks of Algo = 92

Enter a marks of CSO = 92

Total marks is = 435

Average marks is = 87.0

The Percentage is = 87.0

PS C:\Users\SOUMITRA\OneDrive\Desktop\Python>

#Author – Soumitra Das

Date - 15/12/2022

#15. Write a program to enter P, T, R and calculate Simple Interest.

```
P = int (input("Enter a value of P = "))
```

```
R = float (input("Enter a value of R = "))
```

```
T = int (input("Enter a value of T = "))
```

```
i = float((P*R*T)/100)
```

```
print("The simple interest = {}".format(i))
```

OUTPUT

```
PS C:\Users\SOUMITRA\OneDrive\Desktop\Python> &  
C:/Users/SOUMITRA/AppData/Local/Programs/Python/Python310/python.exe  
c:/Users/SOUMITRA/OneDrive/Desktop/Python/Assignment1/Simpleinterest.py
```

Enter a value of P = 5000

Enter a value of R = 3.2

Enter a value of T = 2

The simple interest = 320.0

PS C:\Users\SOUMITRA\OneDrive\Desktop\Python>