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>
```

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#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 = {}\nThe substraction of {} and {} is = {}\nThe
multiplication of {} and {} is = {}\nThe divition of {} and {} is ={}\nThe Remainder Of {} and {}
```

={}".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/arithemtic.py
```

Enter a value of num1: 5

Enter a value of num2: 9

The addition of 5 and 9 is = 14

The substraction of 5 and 9 is = -4

The multiplication of 5 and 9 is = 45

The divition of 5 and 9 is =0.5555555555555556

The Remainder Of 5 and 9 =5

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

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#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>
```

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#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>

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#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>

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#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>
```

```
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#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>
```

```
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#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>
```

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#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>
```

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#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>
```

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#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>

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#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>

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#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>
```

```
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#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>