

Python

## Assignment - 1

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B2 Sec

② Write a Python Program to calculate Simple Interest

Ans:-

Simple interest formula is given by

$$\text{Simple Interest} = (P \times T \times R) / 100$$

Where,

P is the principle amount

T is the time and

R is the rate.

```
def simple_interest(P, t, r):
```

```
    print ("The principal is ", P)
```

```
    print ("The time period is ", t)
```

```
    print ("The rate of interest is ", r)
```

$$Si = (P * t * r) / 100$$

```
    print ("The Simple Interest is", Si)
```

```
    return Si
```

```
# Driver code
```

```
simple_interest(8, 6, 8)
```

Output :

The principal is 8

The time period is 6

The rate of interest is 8

The simple interest is 3.84.



3) Write a Python program to calculate area of circle?

Ans:-

```
def findArea(r):  
    PI = 3.142  
    return PI * (r*r);
```

# Driver method

```
Print("Area is %.6f" % findArea(5));
```

Output

Area is 78.550000

4) Write a python program to calculate area of triangle?

Ans:-

```
def findArea(a,b,c):
```

# must be smaller than third side.

```
if (a < 0 or b < 0 or c < 0 or (a+b <= c)  
    or (a+c <= b) or (b+c <= a)):
```

```
    Print("Not a valid triangle")
```

```
    return
```

```
    s = (a+b+c) / 2
```

```
    area = (s * (s-a) * (s-b) * (s-c)) ** 0.5
```

```
    Print("Area of a triangle is %.6f" % area)
```

```
    a = 3.0
```

```
    b = 4.0
```

```
    c = 5.0
```

```
    findArea(a,b,c)
```



Output

Area is 6.

- ⑤ Write a Python program to calculate temperature in Celsius to Fahrenheit?

Sol:

```
def Cel-To-Fah(n):
```

```
    return (n*1.8)+32
```

```
n=20
```

```
Print (int (Cel-To-Fah (n)))
```

Output

68

- ⑥ Write a python program to calculate area of rectangle?

Sol:- 

```
def areaRectangle(a,b):
```

```
    return (a*b)
```

~~def Per~~

# Driver function

```
a=5;
```

```
b=6;
```

```
print ("Area = ", area Rectangle (a,b))
```

~~print ("")~~

Output

Area = 30

Q write a python program to calculate perimeter of square)

Ans:-  
Print ("Enter 'x' for exit,");  
Side = input ("Enter side length of square,")  
if side == 'x';  
else ;  
    length = int (side);  
    perimeter = 4 \* length;  
    print ("Perimeter of square = ", perimeter);

Q write a python program to find circumference of circle?

PI = 3.1415  
def circumference(r):  
    return (2 \* PI \* r)  
print ("%f" % circumference(5))

Output  
Circumference = 31.415.

Q write a python program to swap two nos.

Ans:-  
x = 10  
y = 50  
temp = x  
x = y



y = temp

Print("value of x:", x)

Print("value of y:", y)

output :

value of x: 50

value of y: 10

Q

① write a python program to design simple calculator for the operators

① + (Addition)

② - (Subtraction)

③ x (multiply)

④ ÷ (Divide)

Select operations form 1, 2, 3, 4 :

Enter first number : 20

Enter second number : 13

20 + 13 = 33

① (addition)

Ans: def add (num1, num2):  
return num1 + num2

② (subtraction)

Ans: def subtract (num1, num2):  
return num1 - num2



⑤ (multiply)

Ans: def multiply (num1, num2):  
return num1 \* num2

⑥ (divide)

Ans: def divide (num1, num2):  
return num1 / num2

⑦ (modulus)

>>> 10 % 3

>>> 11 % 3

2

⑧ (floor division)

Ans: >>> 10 // 3

3

>>> 9 // 2

4