Returning Values From Functios

023 RETURNING MULTIPLE VALUES

```python
def squared(x, y, z):    1 usage
    return x * x, y * y, z * z
t = squared(x:2, y:3, z:4)
print(t)
```

Returning Values From Functios

result = 8

This is the returned value after successful completion of sum(5, 3). Thus result will now store value 8.

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void function but no return statement

```
def greet( ):
    print("helloz")
```

void function with a return statement

```
def quote( ) :
    print("Goodness counts!!")
    return
```

Another void function with no return statement

```
def greet1(name) :
    print("hello", name)
```

```
def prinSum (a, b, c) :
    print("Sum is", a + b + c)
    return
```

Another void function with a return statement

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```python
# Code 1
def replicate() :
    print("$$$$$")

print(replicate())
```

```python
# Code 2
def replicate1() :
        return "$$$$$"

print(replicate1())
```

Returning Values From Functios

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➢**Returning Multiple Values**

Returning Values From Functios

def squared(x, y, z):
    return x * x, y * y, z * z

The **return** statement returning comma separated multiple values (expressions)

Variable *t* that receives the returned values is a tuple (recall that comma separated values are taken as a tuple)

t = squared(2,3,4)

print(t)

Tuple t will be printed as:

(4, 9, 16)

Now you can use the tuple *t* with usual operations

024 PROGRAM TO DO ARITHMETIC OPERATIONS

```python
def arcalc(x, y):  1 usage
    return x+y, x-y, x*y, x/y, x%y
num1=int(input("Enter Number 1: "))
num2=int(input("Enter Number 2: "))
add, sub, mult, div, mod = arcalc(num1, num2)
print("Sum of given Numbers: ", add)
print("Subtraction of given Numbers: ", sub)
print("Product of given Numbers: ", mult)
print("Division of given Numbers: ", div)
print("Modulo of given Numbers: ", mod)
```

Returning Values From Functios

```python
def squared(x, y, z):
    return x * x, y * y, z * z

v1, v2, v3 = squared(2,3,4)
print("The returned values are as under:")
print(v1, v2, v3)
```

Now the received values are in the form of three different variables, not as a tuple

Output produced as::

The returned values are as under:

4 9 16

Returning Values From Functios

```python
def arCalc(x, y) :
    return x+y, x-y, x*y, x/y, x%y

# __main__
num1 = int(input("Enter number 1 : "))
num2 = int(input("Enter number 2 : "))
add, sub, mult, div, mod = arCalc(num1, num2)
print("Sum of given numbers :", add)
print("Subtraction of given numbers :", sub)
print("Product of given numbers :", mult)
print("Division of given numbers :", div)
print("Modulo of given numbers :", mod)
```