

gib

```
def display(*n):  
    print(type(n))
```

```
display(dharma=99, rajesh=34)
```

o/p: <class 'dict'>

```
def display(**n):
```

```
    for k, v in n.items():  
        print(k, '=', v)
```

```
display(dharma=99, rajesh=34)
```

o/p:-

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

~~print~~

```
    return a+b
```

```
print(add(10, 20))
```

o/p:- 30

```
add = lambda a, b: a+b
```

```
print(add(10, 20))
```

o/p:- 30

Squaring a number:

```
def sqx(a):  
    return a*a
```

```
print(sqx(10))
```

o/p: 100
(or using lambda)

```
sqx = lambda a: a*a
```

```
print(sqx(10))
```

o/p: 100

Advanced Functions:

i, filter ii, map iii, reduce

→ filter:

```
list1 = [1, 2, 3, 4, 5, 6, 7, 8, 9]
```

Let filter Even no's for above list

```
Ex: def even(a):
```

```
    if a%2 == 0:
```

```
        return True
```

```
    else:
```

```
        return False
```

```
list1 = [1, 2, 3, 4, 5, 6, 7, 8, 9]
```

```
print(list(filter(even, list1)))
```

o/p: [2, 4, 6, 8]

Using lambda function

```
list1 = [1, 2, 3, 4, 5, 6]
```

```
print(list(filter(lambda a: a%2==0, list1)))
```

```
o/p [2, 4, 6]
```

~~list~~
Only single line we can also print

```
print(list(filter(lambda a: a%2==0, range(10))))
```

```
o/p [2, 4, 6, 8]
```

→ Map:

let double the Every Element in list

```
def double(x):
```

```
    x = x * 2
```

```
list1 = [1, 2, 3, 4]
```

```
print(list(map(double, list1)))
```

```
o/p [2, 4, 6, 8]
```

(or)
Using lambda

```
list1 = [1, 2, 3, 4]
```

```
print(list(map(lambda a: a * 2, list1)))
```

→ Reduce:-

Ex:-

```
def red(a,b):  
    return a+b
```

```
list1 = [1,2,3,4]  
print(reduce(red, list1))
```

o/p:- Error

Ex:-

```
from functools import reduce
```

```
def red(a,b):  
    return a+b
```

```
list1 = [1,2,3,4,5,6]
```

```
print(reduce(red, list1))
```

o/p:- 21

(or)

Using lambda function.

```
from functools import reduce
```

```
print(reduce(lambda a,b:a+b, range(9)))
```

o/p:- 36