Python Function

Syntax

```
def function_name(parameters):
    """docstring"""
    statement(s)
    return expression
```

e.g

```
def hello():
    print("Welcome to ipcs")
```

run

hello() o/p

Welcome to ipcs

calling a function

```
def evenOrodd(x):
    def hello():
        print("Welcome to ipcs")
# Driver code to call a function
hello()
```

Welcome to ipcs

Arguments of a function

```
# whether x is even or odd
def evenOrodd(x):
    if(x%2==0):
        print("even")
    else:
        print("odd")
# Driver code to call the function
evenOrodd(6)
evenOrodd(7)
```

O/P

even
odd

Types of Arguments

```
def myFun(x, y=50):
    print("x:", x)
    print("y:", y)
# Driver code (We call myFun() with only
                argument)

myFun(10)
```

O/P

('x:', 10)
('y:', 50)

Python program to demonstrate Keyword Arguments.

```
def student(f_name, l_name):
    print(f_name, l_name)
# Keyword arguments.
student(f_name='python', l_name='functions')
student(l_name='hello', f_name='programmers')
```

O/P

('python', 'functions')
('hello', 'programmers')

Arbitrary Arguments, *args

1)
```
def my_function(*kids):
    print("The youngest child is "+kids[2])
my_function("Emil", "Tobias", "Linus")
```

O/P

The youngest child is Linus.

2)
```
def myfunction(*args):
    for x in args:
        print(x)
myfunction('Hello', 'Welcome', 'to', 'IPCS')
```

O/P

Hello
Welcome
to
IPCS

Arbitrary Keyword Arguments, **kwargs

1) def my_function (**student):
    print ('His first name is ' + student ["fname"])

call()
my_function (fname = "Priya", lname = "Singh")

His first name is Priya.

2) def myFun (**kwargs):
    for key, value in kwargs.items():
        print (key, value)
myFun (first = 'welcome', mid = 'for', last = 'course').

eg)
def sum (a, b):
    c = a + b
    print (c)

sum (3, 5)

8

def sub (a, b = 0)
    p = a - b
    print (p)

sub (5, 6)

-1

50, 59 → Fail
60, 69 → B
70, 79 → B+
80, 89 → A
90, 100 → A+

(start; stop, step)
↳ +1
6.

(5, 1-1)

5, 4, 3, 2, 1
(6) ← x
↳ 4

x = 2
x += 4
x = ?