



## NIOS Computer Science: Chapter 12 – Function Part 10

# Default Arguments

- Default value to function argument is passed using assignment operator ‘ = ‘.

### Example:

```
def greet(name, msg = "Good morning!"):
print("Hello, " name + ', ' + msg)
```

- Non-default argument cannot follow default argument

**Example:** `def greet(msg = "Good morning!", name):`

### SyntaxError:

**non-default argument follows default argument**

*Image of Default Arguments*



## Function With Default Argument

C ++ allows to call a function without specifying all its arguments.

In such cases, the function assigns a default value to a parameter which does not have a matching argument in the function call.

The compiler knows from the prototype how many arguments a function uses for calling.

### Example:

```
float result (int marks 1, int marks 2, int marks 3 = 75);
```

A subsequent function call

```
Average = result (60, 70);
```

Passes the value 60 to marks 1, 70 to marks 2 and lets the function use default value of 75 for marks3.

```
The call Average = result ( 60, 70, 80);
```

Passes the value 80 to marks 3.

The important point to note is that only the trailing argument can have default values.

Consider the following program:

```
# include < iostream.h>

void repchar (char = '=', int = 30);

void main ( )
{
repchar ( );
repchar ( ' × ');
repchar ('+', 45);
}

void repchar (char ch, int x)
{
for (int i= 1; i < = x; i + + )
cout < < ch;
cout < < "\n";
}
```

The default argument follows an equal sign, which is placed directly after the type name.

In the above program, the function repchar( ) takes two arguments. It is called three times from main( ).

- First time it is called with no argument. The function assigns the default value '=' to ch and 30 to x and it print '=' symbol thirty times on the screen.
- Second time it is called with one argument. The function assigns the default value 30 to x and it prints '\*' symbol thirty times on the screen.
- Third time it is called with two arguments. The actual parameters take priority over the default parameters. It prints '+' symbol forty-five times.