

Function/ Method Overloading	Function/ Method Overriding
<p>1)In function overloading we declare more than one function with same name and different types of parameters.</p> <p>Example: int sum();</p> <p style="padding-left: 40px;">Int sum(int x);</p> <p>2)It can occur without Inheritance.</p> <p>3)It occurs only in one class.</p>	<p>1)In function overriding we declare a function in base class and derived class with the same name and same parameters.</p> <p>Example: void sum();</p> <p style="padding-left: 40px;">void sum();</p> <p>2) It only occurs with Inheritance.</p> <p>3) It occurs with base and derived class.</p>

```

Class A {
public:
void function1() {}
void function2() {}
void function2(int x) {}      //Method Overloading
};

Class B : public A {
void function1() {}      //Method Overriding
void function2(int x) {}      //Method Hiding
};

void main(){
B obj;
Obj.f1();      //B
Obj.f2();      //error
Obj.f2(32);    //B
}

```

Note: -More than 1 functions with same name and different arguments has to be in same class.

If we want to assign two different definitions to same function OR If we want to use same function for two completely different functionalities then we should use Method Overriding.