Fundamentals of programming I

Lab 5

Exercises

- Write a function definition for a function is_root_of that takes two arguments of type int and prints true if the first argument is the square root of the second; otherwise, it prints false.

- Write a function definition for a function called in_order that takes three arguments of type int.The function prints true if the three arguments are in ascending order; otherwise, it prints false . For example, in_order(1, 2, 3) and in_order(1, 2, 2) both return true, while in_order(1, 3, 2) returns false.

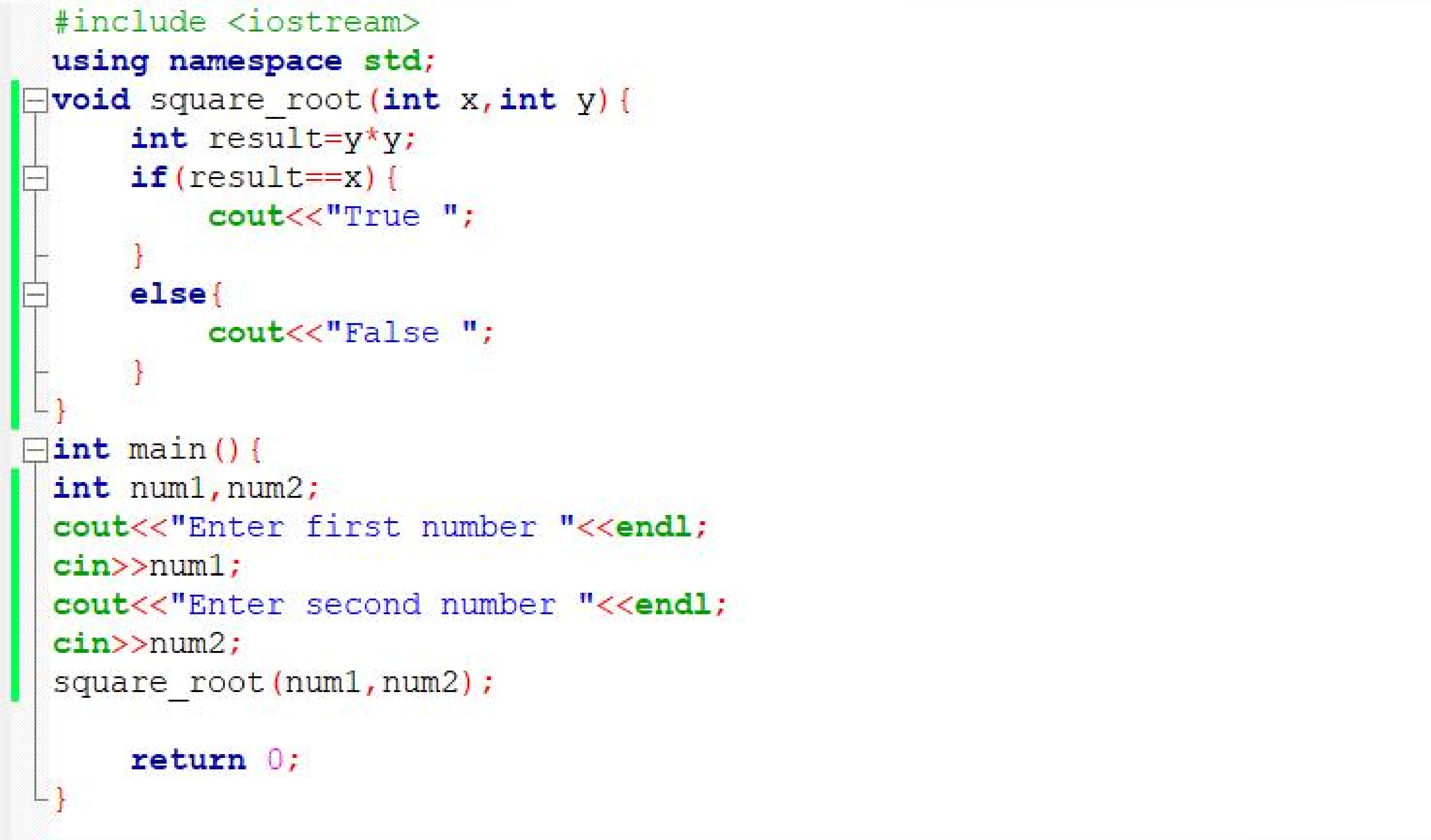
- Write a function definition for a function called even that takes one argument of type int and prints true if it's one argument is an even number; otherwise, it prints false.

- Write a function declaration and a function definition for a function that takes one argument of type double .The function prints the character value 'P' if its argument is positive and prints 'N' if its argument is zero or negative.

- Write a function minimum that takes two parameters either of type double and prints the smaller of them.

- Write a function definition for a function is_root_of that takes two arguments of type int and prints true if the first argument is the square root of the second; otherwise, it prints false.

code 1

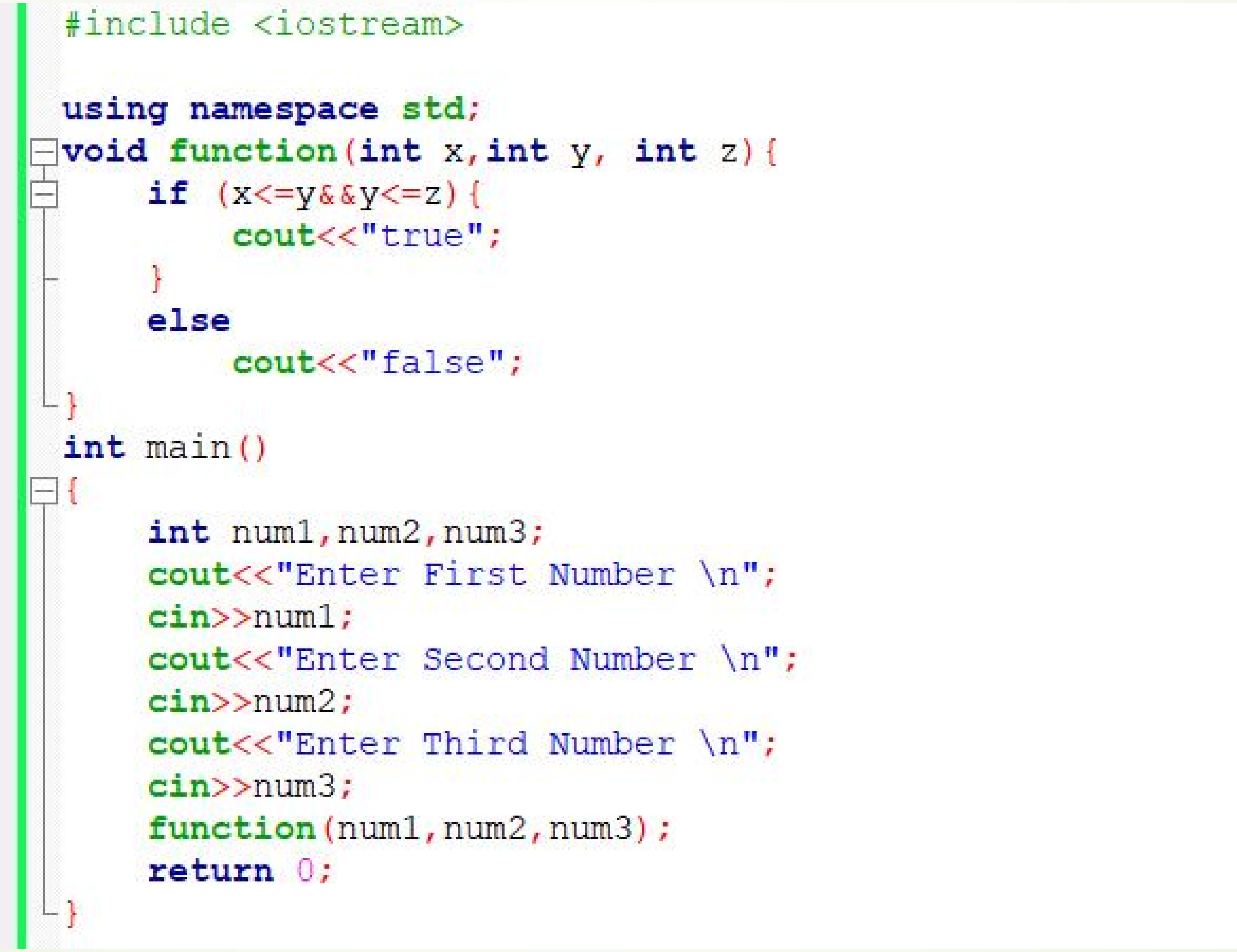


```
#include <iostream>
using namespace std;
void square_root(int x,int y){
    int result=y*y;
    if(result==x){
        cout<<"True ";
    }
    else{
        cout<<"False ";
    }
}
int main(){
int num1,num2;
cout<<"Enter first number "<<endl;
cin>>num1;
cout<<"Enter second number "<<endl;
cin>>num2;
square_root(num1,num2);

    return 0;
}
```

- Write a function definition for a function called in_order that takes three arguments of type int.The function prints true if the three arguments are in ascending order; otherwise, it prints false . For example, in_order(1, 2, 3) and in_order(1, 2, 2) both return true, while in_order(1, 3, 2) returns false.

code 2

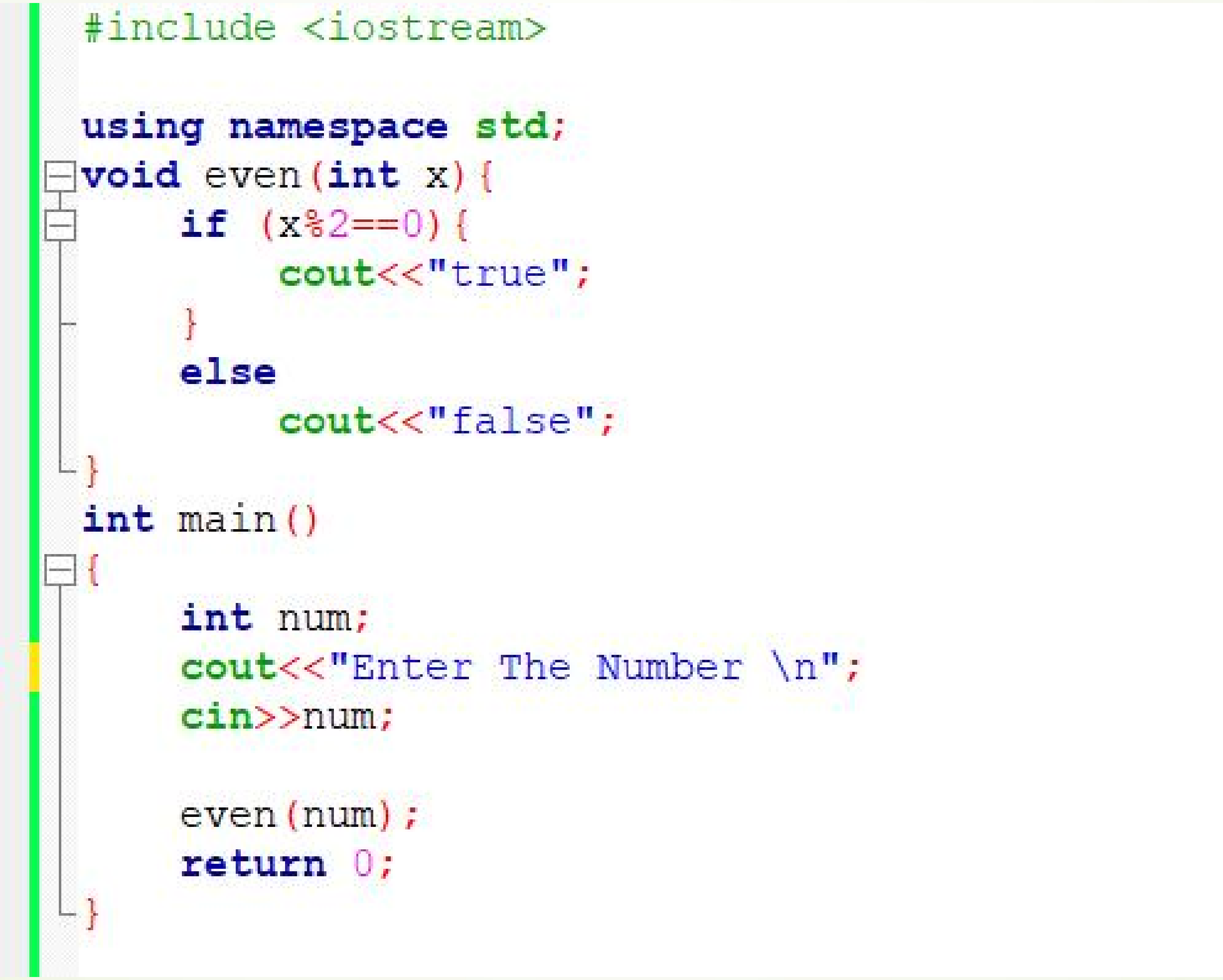


```
#include <iostream>

using namespace std;
void function(int x,int y, int z){
    if (x<=y&&y<=z){
        cout<<"true";
    }
    else
        cout<<"false";
}
int main()
{
    int num1,num2,num3;
    cout<<"Enter First Number \n";
    cin>>num1;
    cout<<"Enter Second Number \n";
    cin>>num2;
    cout<<"Enter Third Number \n";
    cin>>num3;
    function(num1,num2,num3);
    return 0;
}
```

- Write a function definition for a function called even that takes one argument of type int and prints true if it's one argument is an even number; otherwise, it prints false.

code 3



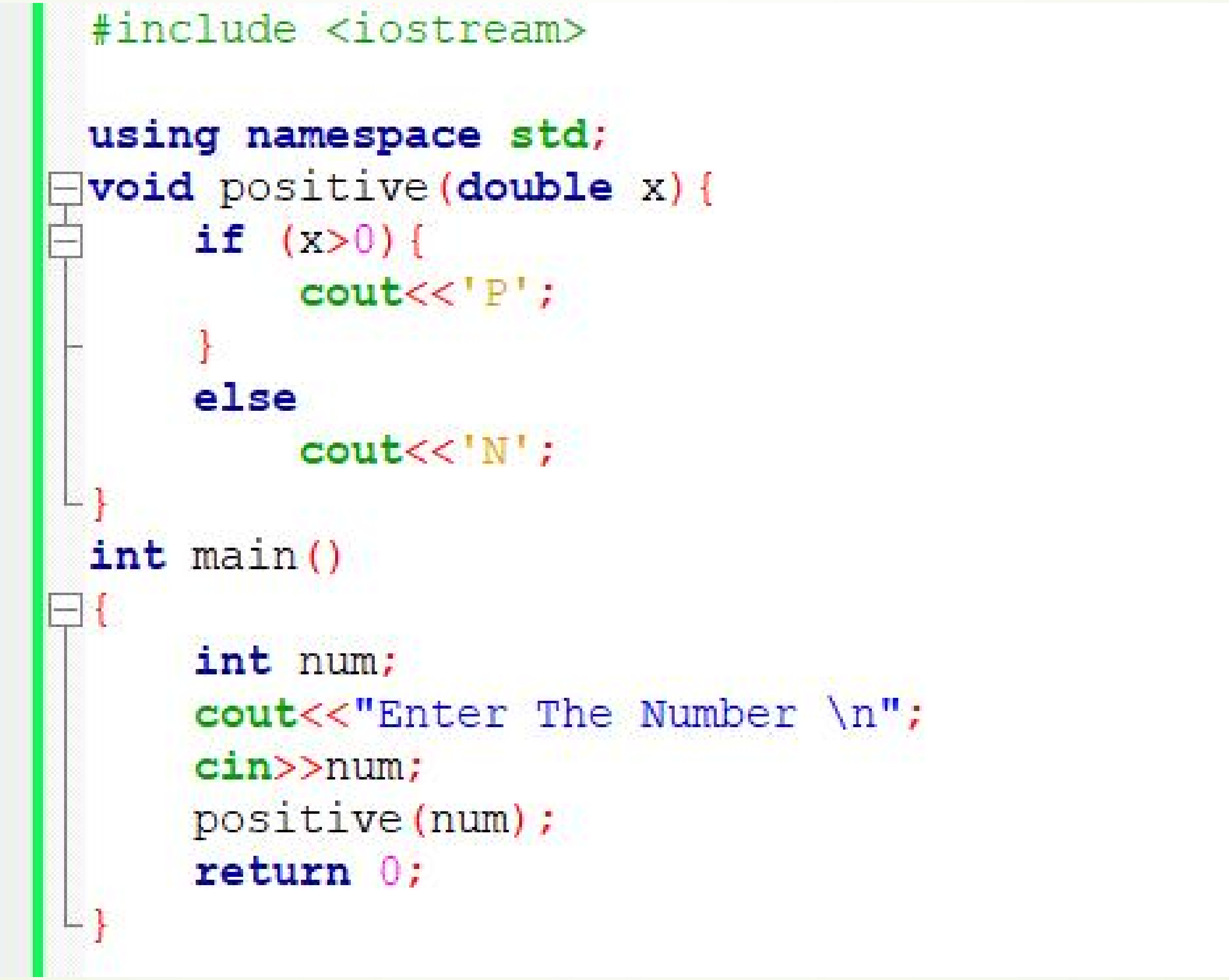
```
#include <iostream>

using namespace std;
void even(int x){
    if (x%2==0){
        cout<<"true";
    }
    else
        cout<<"false";
}
int main()
{
    int num;
    cout<<"Enter The Number \n";
    cin>>num;

    even(num);
    return 0;
}
```

- Write a function declaration and a function definition for a function that takes one argument of type double .The function prints the character value 'P' if its argument is positive and prints 'N' if its argument is zero or negative.

code 4

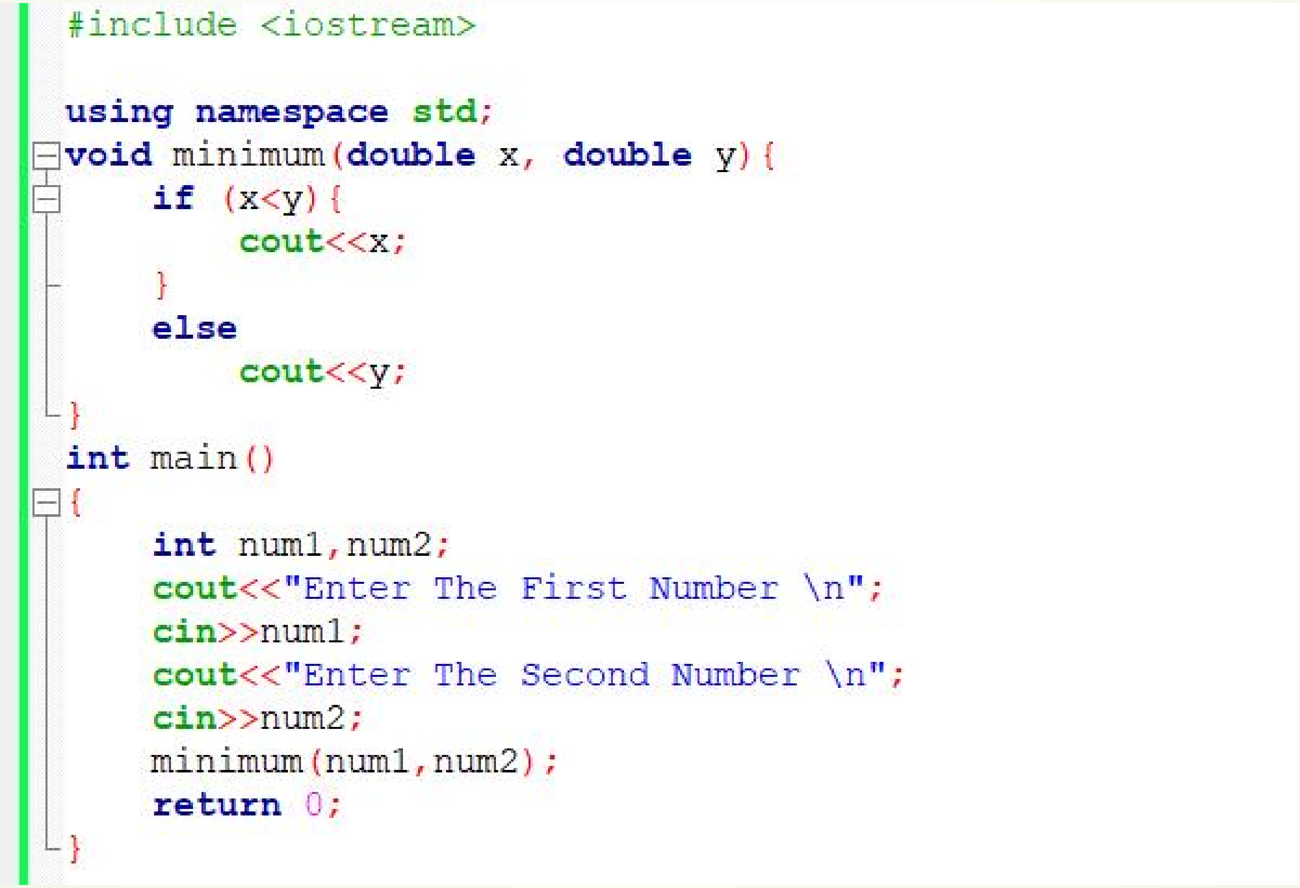


```
#include <iostream>

using namespace std;
void positive(double x){
    if (x>0){
        cout<<'P';
    }
    else
        cout<<'N';
}
int main()
{
    int num;
    cout<<"Enter The Number \n";
    cin>>num;
    positive(num);
    return 0;
}
```

- Write a function minimum that takes two parameters either of type double and prints the smaller of them.

code 5



```cpp
#include <iostream>

using namespace std;
void minimum(double x, double y){
    if (x<y){
        cout<<x;
    }
    else
        cout<<y;
}
int main()
{
    int num1,num2;
    cout<<"Enter The First Number \n";
    cin>>num1;
    cout<<"Enter The Second Number \n";
    cin>>num2;
    minimum(num1,num2);
    return 0;
}
```

Thank You !