Exercise 1: Identify the Function Type：

· Library Function: sqrt(16.0)

- · This function is part of the standard C++ library, specifically from the <cmath> library, and it calculates the square root of a number. Here, sqrt is used to find the square root of 16.0.

· User-Defined Function: greet()

- · This function is defined by the user with the void greet() declaration and is implemented later in the code. It outputs a message to the console: "Hello from greet function!". It is not part of the standard library but is created for a specific purpose in this program.

Exercise 2: Library Function Usage:

```
#include <iostream>
#include <cmath>
using namespace std;
int main() {
    double num, squared;
    cout << "Enter a number to be squared: ";
    cin >> num;
    squared = pow(num, 2.0);
    cout << "The square of " << num << " is: " << squared << endl;
    return 0;
}
```

Exercise 3: Basic Function Definition:

```
#include <iostream>
using namespace std;
```

```
// Function declaration
void greet();
int main() {
    greet(); // Call the greet function
    return 0;
}
// Function definition
void greet() {
    cout << "Hello, World!" << endl;
}
```

Exercise 4: Function with Parameters:

```
#include <iostream>
using namespace std;
// Function that takes two integers and displays their sum
void displaySum(int a, int b) {
    int sum = a + b;
    cout << "The sum of " << a << " and " << b << " is: " << sum << endl;
}
int main() {
    int x = 5, y = 10;
    displaySum(x, y); // Call the function with two numbers
    return 0;
}
```

Exercise 5: Return a Value:

```
#include <iostream>
using namespace std;
```

```
// Function that triples the given integer and returns the result
int triple(int number) {
	return number * 3;
}
int main() {
	int value = 4;
	int result = triple(value); // Call the function and store the result
	cout << "Triple of " << value << " is: " << result << endl;
	return 0;
}
```