

C++ Basic Exercises

Exercise 1: Print "Hello, World!"

Code:

```
#include <iostream> // Includes the standard library for input and output
using namespace std; // Allows us to use names from the standard library without `std::`

int main() {
    cout << "Hello, World!" << endl; // Outputs "Hello, World!" to the console
    return 0; // Ends the program
}
```

Exercise 2: Print Your Name

Code:

```
#include <iostream> // Includes the standard input/output library
using namespace std; // Simplifies the code by allowing us to write `cout` instead of `std::cout`

int main() {
    cout << "My name is Alex." << endl; // Prints "My name is Alex." and moves to a new line
    return 0; // Ends the program successfully
}
```

Exercise 3: Print Two Lines

Code:

```
#include <iostream> // Includes the library for input and output
using namespace std; // Simplifies code by allowing `cout` instead of `std::cout`

int main() {
    cout << "Hello!" << endl; // Prints "Hello!" and moves to a new line
    cout << "Welcome to C++ programming." << endl; // Prints "Welcome to C++ programming."
    return 0; // Ends the program
}
```

Exercise 4: Print a Number**Code:**

```
#include <iostream> // Includes the standard input/output library
using namespace std; // Allows us to use names like `cout` without `std::`

int main() {
    cout << 100 << endl; // Outputs the number 100 and moves to a new line
    return 0; // Ends the program successfully
}
```

Exercise 5: Print a Message with a Variable**Code:**

```
#include <iostream> // Includes the library for input and output
using namespace std; // Simplifies code by allowing `cout` instead of `std::cout`

int main() {
    int number = 50; // Declares an integer variable called `number` and assigns it the value 50
    cout << "The number is " << number << endl;
    return 0; // Ends the program
}
```

Exercise 6: Simple Math Output

Code:

```
#include <iostream> // Includes the library for input and output
using namespace std; // Allows us to use `cout` without `std::`

int main() {
    cout << "5 + 3 = " << (5 + 3) << endl;
    return 0; // Ends the program successfully
}
```

Exercise 7: Storing and Printing Your Age**Code:**

```
#include <iostream> // Includes the library for input and output
using namespace std; // Allows us to use `cout` without `std::`

int main() {
    int age = 20; // Declares an integer variable called `age` and sets it to 20

    cout << "I am " << age << " years old." << endl;

    return 0; // Ends the program
}
```