



```
1 #include <iostream>
2 using namespace std;
3 int max(int a, int b) {
4     return (a > b) ? a : b;
5 }
6 float max(float a, float b) {
7     return (a > b) ? a : b;
8 }
9 char max(char a, char b) {
10    return (a > b) ? a : b;
11 }
12 int main() {
13     int int1 = 10, int2 = 20;
14     float float1 = 10.5, float2 = 20.5;
15     char char1 = 'a', char2 = 'b';
16     cout << "Max of integers: " << max(int1, int2) << endl;
17     cout << "Max of floats: " << max(float1, float2) << endl;
18     cout << "Max of characters: " << max(char1, char2) << endl;
19     return 0;
20 }
```

sources Compile Log Debug Find Results Close

Compilation results...

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- Errors: 0

- Warnings: 0

- Output Filename: C:\Users\Administrator\Documents\op ol 11.exe

C:\Users\Administrator\Doc x + - □ x

Max of integers: 20

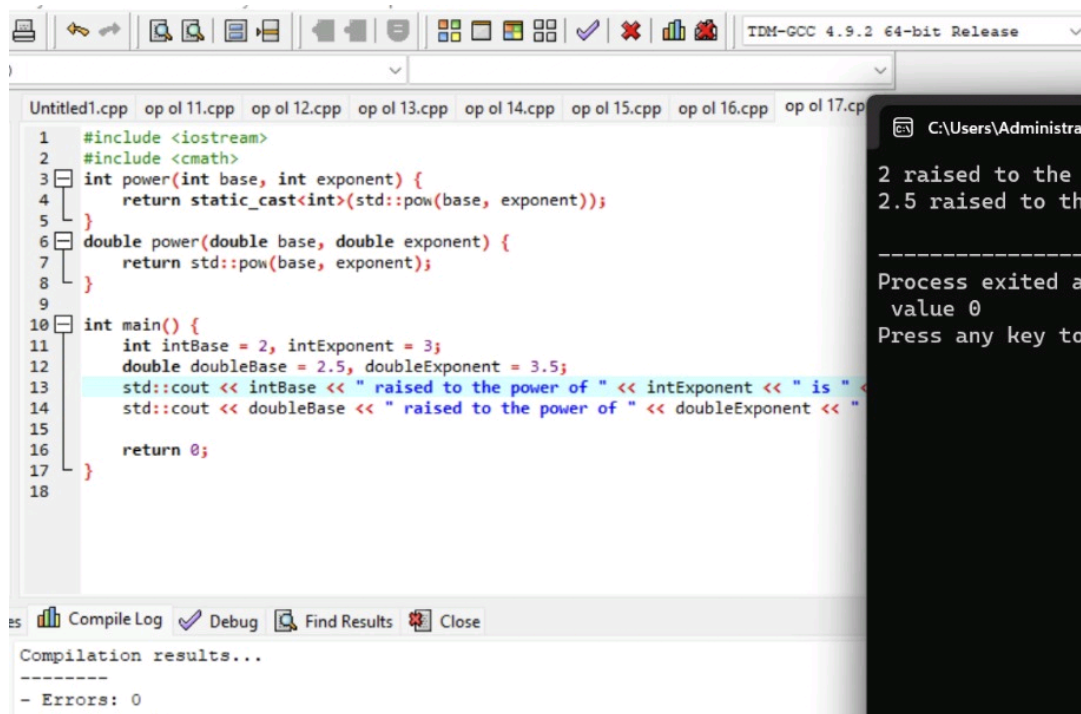
Max of floats: 20.5

Max of characters: b

-----

Process exited after 0.6368 seconds with return value 0

Press any key to continue . . . |

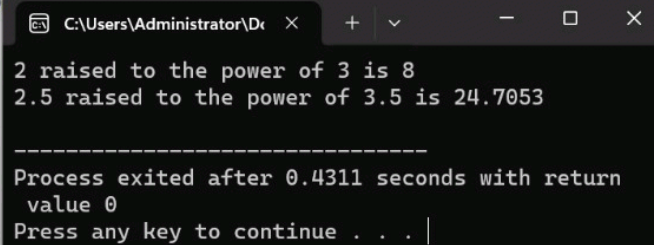


The image shows a screenshot of a C++ IDE. The top toolbar includes icons for file operations, editing, and compilation, with a dropdown menu set to 'TDM-GCC 4.9.2 64-bit Release'. The main editor window displays the following code:

```
1 #include <iostream>
2 #include <cmath>
3 int power(int base, int exponent) {
4     return static_cast<int>(std::pow(base, exponent));
5 }
6 double power(double base, double exponent) {
7     return std::pow(base, exponent);
8 }
9
10 int main() {
11     int intBase = 2, intExponent = 3;
12     double doubleBase = 2.5, doubleExponent = 3.5;
13     std::cout << intBase << " raised to the power of " << intExponent << " is " << power(intBase, intExponent) << "\n";
14     std::cout << doubleBase << " raised to the power of " << doubleExponent << " is " << power(doubleBase, doubleExponent) << "\n";
15
16     return 0;
17 }
18
```

Below the editor, the 'Compile Log' tab is active, showing the following output:

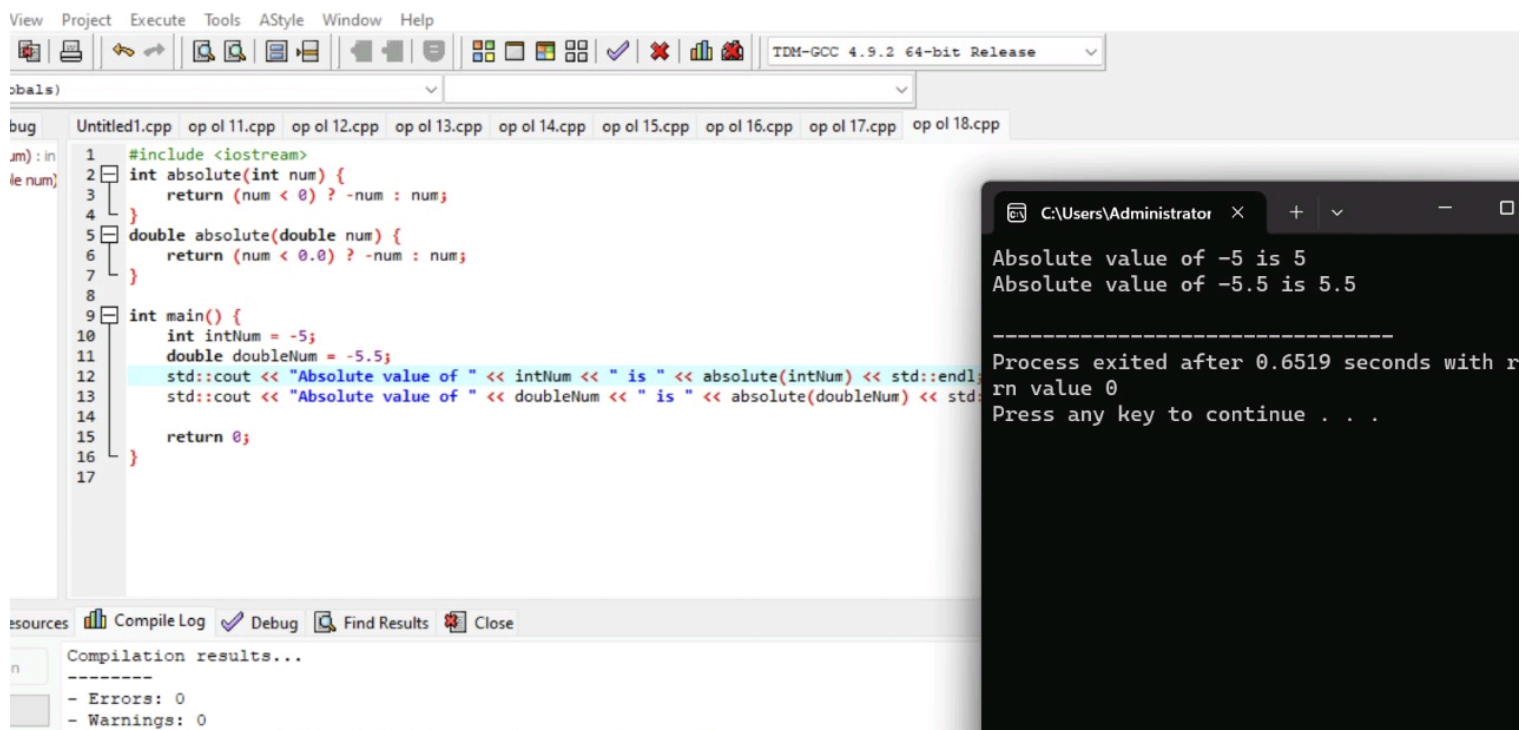
```
Compilation results...
-----
- Errors: 0
-----
```



The image shows a screenshot of a Windows command prompt window. The title bar indicates the path 'C:\Users\Administrator\De'. The window contains the following text:

```
2 raised to the power of 3 is 8
2.5 raised to the power of 3.5 is 24.7053

-----
Process exited after 0.4311 seconds with return
value 0
Press any key to continue . . . |
```



```
Untitled1.cpp  op of 11.cpp  op of 12.cpp  op of 13.cpp  op of 14.cpp  op of 15
1  #include <iostream>
2  #include <algorithm>
3  using namespace std;
4  void sortArray(int arr[], int size) {
5      std::sort(arr, arr + size);
6  }
7
8  void sortArray(double arr[], int size) {
9      std::sort(arr, arr + size);
10 }
11
12 template<typename T>
13 void printArray(T arr[], int size) {
14     for (int i = 0; i < size; i++) {
15         std::cout << arr[i] << " ";
16     }
17     std::cout << std::endl;
18 }
19
20 int main() {
21     int intArr[] = {5, 3, 8, 2, 1};
22     double doubleArr[] = {5.5, 3.3, 8.8, 2.2, 1.1};
23     int intSize = sizeof(intArr) / sizeof(int);
24     int doubleSize = sizeof(doubleArr) / sizeof(double);
25     sortArray(intArr, intSize);
26     std::cout << "Sorted integer array: ";

```

es Compile Log Debug Find Results Close

Compilation results...

-----

- Errors: 0

- Warnings: 0

```
C:\Users\Administrator\Docu... x + v - □ x
Sorted integer array: 1 2 3 5 8
Sorted double array: 1.1 2.2 3.3 5.5 8.8

-----
Process exited after 0.4714 seconds with return value 0
Press any key to continue . . . |
```

View Project Execute Tools AStyle Window Help



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ug Untitled1.cpp op ol 11.cpp op ol 12.cpp op ol 13.cpp op ol 14.cpp op ol 15.cpp

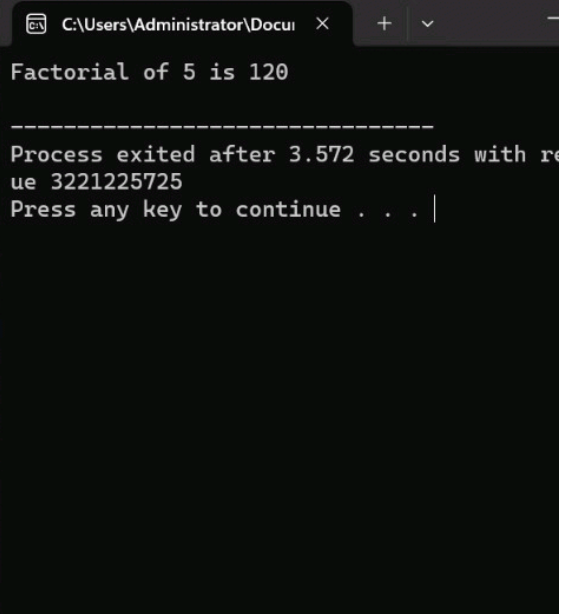
```
1 #include <iostream>
2 using namespace std;
3 int factorial(int n) {
4     if (n == 0 || n == 1) {
5         return 1;
6     } else {
7         return n * factorial(n - 1);
8     }
9 }
10 double factorial(double n) {
11     if (n == 0.0 || n == 1.0) {
12         return 1.0;
13     } else {
14         return n * factorial(n - 1.0);
15     }
16 }
17
18 int main() {
19     int intNum = 5;
20     double doubleNum = 5.5;
21     std::cout << "Factorial of " << intNum << " is " << factorial(intNum) << std::endl;
22     std::cout << "Factorial of " << doubleNum << " is " << factorial(doubleNum) << std::endl;
23
24     return 0;
25 }
26
```

sources Compile Log Debug Find Results Close

Compilation results...

-----

- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\Administrator\Documents\op ol 15.exe
- Output Size: 1.83316707611084 MiB



The image shows a C++ IDE with three main panels. The top panel displays the source code for a program that prints integer, double, and character arrays. The bottom-left panel shows the compilation results, indicating no errors or warnings. The bottom-right panel shows the program's output, which prints the arrays and then exits.

```
1 #include <iostream>
2 using namespace std;
3 void printArray(int arr[], int size) {
4     cout << "Integer Array:";
5     for (int i = 0; i < size; i++) {
6         cout << " " << arr[i];
7     }
8     cout << endl;
9 }
10 void printArray(double arr[], int size) {
11     cout << "Double Array:";
12     for (int i = 0; i < size; i++) {
13         cout << " " << arr[i];
14     }
15     cout << endl;
16 }
17 void printArray(char arr[], int size) {
18     cout << "Character Array:";
19     for (int i = 0; i < size; i++) {
20         cout << " " << arr[i];
21     }
22     cout << endl;
23 }
24
25 int main() {
26     int intArr[] = {1, 2, 3, 4, 5};
```

Compilation results...

```
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\Administrator\Docu
- Output Size: 1.83321285247803 MiB
- Compilation Time: 1.73s
```

Integer Array: 1 2 3 4 5  
Double Array: 1.1 2.2 3.3 4.4 5.5  
Character Array: a b c d e

-----  
Process exited after 0.5229 seconds with return value 0  
Press any key to continue . . . |

```
Project Explorer View Output Console Help
s)
Untitled1.cpp op ol 11.cpp op ol 12.cpp op ol 13.cpp
1 #include <iostream>
2 using namespace std;
3 const int ROWS = 2;
4 const int COLS = 3;
5 void printMatrix(int matrix[ROWS][COLS]) {
6     for (int i = 0; i < ROWS; i++) {
7         for (int j = 0; j < COLS; j++) {
8             std::cout << matrix[i][j] << " ";
9         }
10        std::cout << std::endl;
11    }
12 }
13 void sum(int matrix1[ROWS][COLS], int matrix2[ROWS][COLS], int result[ROWS][COLS]) {
14     for (int i = 0; i < ROWS; i++) {
15         for (int j = 0; j < COLS; j++) {
16             result[i][j] = matrix1[i][j] + matrix2[i][j];
17         }
18     }
19 }
20 void sum(int arr1[], int arr2[], int result[], int size) {
21     for (int i = 0; i < size; i++) {
22         result[i] = arr1[i] + arr2[i];
23     }
24 }
25
26 int main() {
ces Compile Log Debug Find Results Close
Compilation results...
```

```
C:\Users\Administrator\Dr
Sum of matrices:
8 10 12
14 16 18
Sum of arrays: 5 7 9

-----
Process exited after 1.443 seconds with return
value 0
Press any key to continue . . .
```



The image shows a C++ IDE with a source code editor and a console window. The source code defines two concatenation functions and a main function that tests them. The console window displays the output of the program, showing the concatenated string and character array, followed by a message indicating the process exited after 2.564 seconds.

```
1 #include <iostream>
2 #include <cstring>
3 using namespace std;
4 string concatenate(string str1, string str2) {
5     return str1 + str2;
6 }
7 char* concatenate(char arr1[], char arr2[]) {
8     int len1 = strlen(arr1);
9     int len2 = strlen(arr2);
10    char* result = new char[len1 + len2 + 1];
11    strcpy(result, arr1);
12    strcat(result, arr2);
13    return result;
14 }
15 int main() {
16     string str1 = "Hello, ";
17     string str2 = "world!";
18     char arr1[] = "Hello, ";
19     char arr2[] = "world!";
20     string resultStr = concatenate(str1, str2);
21     cout << "Concatenated string: " << resultStr << std::endl;
22     char* resultArr = concatenate(arr1, arr2);
23     cout << "Concatenated character array: " << resultArr << std::endl;
24     delete[] resultArr;
25     return 0;
26 }
```

Compilation results...

- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\Administrator\Documents\op ol 12.e
- Output Size: 1.83701229095459 MiB
- Compilation Time: 1.69s

Concatenated string: Hello, world!  
Concatenated character array: Hello, world!

-----  
Process exited after 2.564 seconds with return value 0  
Press any key to continue . . .