

```
1  #include <iostream>
2  unsigned long long factorial(int n) {
3      if (n == 0 || n == 1)
4          return 1;
5      else
6          return n * factorial(n - 1);
7  }
8  unsigned long long combination(int n, int k) {
9      return factorial(n) / (factorial(k) * factorial(n - k));
10 }
11 int main() {
12     int rows;
13     std::cout << "Enter number of rows for Pascal's Triangle: ";
14     std::cin >> rows;
15     for (int i = 0; i < rows; ++i) {
16         for (int j = 0; j < rows - i - 1; ++j) {
17             std::cout << " ";
18         }
19         for (int j = 0; j <= i; ++j) {
20             std::cout << combination(i, j) << " ";
21         }
22         std::cout << std::endl;
23     }
24     return 0;
25 }
26
```

Abort Compilation

```
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\mahic\OneDrive\Desktop\c++\pascal triangle.exe
- Output Size: 1.83318996429443 MiB
- Compilation Time: 0.72s
```

Enter number of rows for Pascal's Triangle: 4

```
1
1 1
1 2 1
1 3 3 1
```

```
-----
Process exited after 5.384 seconds with return v
alue 0
Press any key to continue . . . |
```

```
1 #include <iostream>
2 int main() {
3     int rows;
4     std::cout << "Enter number of rows for the pattern: ";
5     std::cin >> rows;
6     for (int i = 1; i <= rows; ++i) {
7         for (int j = 1; j <= i; ++j) {
8             std::cout << "*";
9         }
10        std::cout << std::endl;
11    }
12    return 0;
13 }
14
```

Abort Compilation

```
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\mahic\OneDrive\Desktop\c++\star pattern.exe
- Output Size: 1.83260917663574 MiB
- Compilation Time: 0.66s
```

```
1  #include <iostream>
2
3  int main() {
4      int rows;
5
6      std::cout << "Enter the number of rows: ";
7      std::cin >> rows;
8
9      for (int i = 1; i <= rows; ++i) {
10         for (int j = 1; j <= i; ++j) {
11             std::cout << i;
12         }
13         std::cout << std::endl;
14     }
15
16     return 0;
17 }
18
```

Abort Compilation

```
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\mahic\OneDrive\Desktop\c++\pattern - digits
- Output Size: 1.83262920379639 MiB
- Compilation Time: 0.70s
```

Enter the number of rows: 5

```
1
22
333
4444
55555
```

```
-----
Process exited after 3.644 seconds with return value 0
Press any key to continue . . .
```





(globals)

Project Classes Debug abundant number.cpp narcissistic number.cpp

```
12 int originalNumber = number;
13 int numDigits = countDigits(number);
14 int sum = 0;
15
16 while (number != 0) {
17     int digit = number % 10;
18     sum += pow(digit, numDigits);
19     number /= 10;
20 }
21
22 return sum == originalNumber;
23 }
24
25 int main() {
26     int num;
27
28     std::cout << "Enter a number: ";
29     std::cin >> num;
30
31     if (isNarcissistic(num)) {
32         std::cout << num << " is a narcissistic number." << std::endl;
33     } else {
34         std::cout << num << " is not a narcissistic number." << std::endl;
35     }
36
37     return 0;
38 }
39
```

Compiler Resources Compile Log Debug Find Results Close

Abort Compilation

```
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\mahic\OneDrive\Desktop\c++\narcissistic number
- Output Size: 1.85513305664063 MiB
- Compilation Time: 0.67s
```

☐ Shorten compiler paths

Line: 2 Col: 17 Sel: 0 Lines: 39 Length: 805 Insert Done parsing in 0 seconds





```
1  #include <iostream>
2  using namespace std;
3  int sumOfProperDivisors(int number) {
4      int sum = 0;
5      for (int i = 1; i <= number / 2; ++i) {
6          if (number % i == 0) {
7              sum += i;
8          }
9      }
10     return sum;
11 }
12 bool isAbundantNumber(int number) {
13     int sum = sumOfProperDivisors(number);
14     return (sum > number);
15 }
16 int main() {
17     int number;
18     cout << "Enter a number: ";
19     cin >> number;
20     if (isAbundantNumber(number)) {
21         cout << number << " is an abundant number." << endl;
22     } else {
23         cout << number << " is not an abundant number." << endl;
24     }
25     return 0;
26 }
27
```

Abort Compilation

```
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\mahic\OneDrive\Desktop\c++\abundant number.exe
- Output Size: 1.83272647857666 MiB
- Compilation Time: 0.94s
```



```
1  #include <iostream>
2  using namespace std;
3  int sumOfDigits(int number) {
4      int sum = 0;
5      while (number > 0) {
6          sum += number % 10;
7          number /= 10;
8      }
9      return sum;
10 }
11 bool isNeonNumber(int number) {
12     int square = number * number;
13     int sum = sumOfDigits(square);
14     return (sum == number);
15 }
16 int main() {
17     int number;
18     cout << "Enter a number: ";
19     cin >> number;
20     if (isNeonNumber(number)) {
21         cout << number << " is a neon number." << endl;
22     } else {
23         cout << number << " is not a neon number." << endl;
24     }
25     return 0;
26 }
27
```

Abort Compilation

```
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\mahic\OneDrive\Desktop\c++\neon number.exe
- Output Size: 1.832688331604 MiB
- Compilation Time: 0.70s
```





(globals)

Project Classes Debug happy number.cpp strong number.cpp buzz number.cpp

```
1  #include <iostream>
2  using namespace std;
3  bool isBuzzNumber(int number) {
4      return (number % 7 == 0 || number % 10 == 7);
5  }
6  int main() {
7      int number;
8      cout << "Enter a number: ";
9      cin >> number;
10     if (isBuzzNumber(number)) {
11         cout << number << " is a buzz number." << endl;
12     } else {
13         cout << number << " is not a buzz number." << endl;
14     }
15     return 0;
16 }
17
```

Compiler Resources Compile Log Debug Find Results Close

Abort Compilation

```
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\mahic\OneDrive\Desktop\c++\buzz number.
- Output Size: 1.83265590667725 MiB
- Compilation Time: 0.86s
```

Line: 14 Col: 6 Sel: 0 Lines: 17 Length: 406 Insert Done parsing in 0.016 seconds



C:\Users\mahic\OneDrive

Enter a number: 4  
4 is not a buzz number.

-----  
Process exited after 3.045 seconds with return value 0  
Press any key to continue . . .

```
2 using namespace std;
3 int factorial(int n) {
4     if (n <= 1)
5         return 1;
6     return n * factorial(n - 1);
7 }
8 bool isStrong(int number) {
9     int originalNumber = number;
10    int sum = 0;
11    while (number > 0) {
12        int digit = number % 10;
13        sum += factorial(digit);
14        number /= 10;
15    }
16    return (sum == originalNumber);
17 }
18 int main() {
19     int number;
20     cout << "Enter a number: ";
21     cin >> number;
22     if (isStrong(number)) {
23         cout << number << " is a strong number." << endl;
24     } else {
25         cout << number << " is not a strong number." << endl;
26     }
27     return 0;
28 }
29
```

Abort Compilation

```
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\mahic\OneDrive\Desktop\c++\strong number.exe
- Output Size: 1.83316612243652 MiB
- Compilation Time: 1.03s
```



```
1  #include <iostream>
2  using namespace std;
3  bool isHarshad(int number) {
4      int originalNumber = number;
5      int sumOfDigits = 0;
6      while (number > 0) {
7          sumOfDigits += number % 10;
8          number /= 10;
9      }
10     return (originalNumber % sumOfDigits == 0);
11 }
12 int main() {
13     int number;
14     cout << "Enter a number: ";
15     cin >> number;
16     if (isHarshad(number)) {
17         cout << number << " is a Harshad number." << endl;
18     } else {
19         cout << number << " is not a Harshad number." << endl;
20     }
21     return 0;
22 }
23
```

Abort Compilation

```
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\mahic\OneDrive\Desktop\c++\harshad number.exe
- Output Size: 1.83264827728271 MiB
- Compilation Time: 0.89s
```



(globals)

Project Classes Debug

perfect number.cpp armstrong number.cpp

```
7 | int numberOfDigits = 0;
8 | int temp = number;
9 | while (temp > 0) {
10 |     temp /= 10;
11 |     numberOfDigits++;
12 | }
13 | temp = number;
14 | while (temp > 0) {
15 |     int digit = temp % 10;
16 |     sum += pow(digit, numberOfDigits);
17 |     temp /= 10;
18 | }
19 | return (sum == originalNumber);
20 | }
21 | int main() {
22 |     int number;
23 |     cout << "Enter a number: ";
24 |     cin >> number;
25 |     if (isArmstrong(number)) {
26 |         cout << number << " is an Armstrong number." << endl;
27 |     } else {
28 |         cout << number << " is not an Armstrong number." << endl;
29 |     }
30 |     return 0;
31 | }
32 |
```

Compiler Resources Compile Log Debug Find Results Close

Abort Compilation

```
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\mahic\OneDrive\Desktop\c++\armstrong numb
- Output Size: 1.8558235168457 MiB
- Compilation Time: 0.86s
```

☐ Shorten compiler paths

Line: 29 Col: 6 Sel: 0 Lines: 32 Length: 752 Insert Done parsing in 0.047 seconds

CAD/INR  
-0.22%

Search

ENG  
IN19:48  
05-07-2024

C:\Users\mahic\OneDrive\Desktop\c++\gcd.cpp - [Executing] - Dev-C++ 5.11

File Edit Search View Project Execute Tools AStyle Window Help

TDM-GCC 4.9.2 64-bit Release

(globals)

Project Classes Debug fibonacci.cpp prime number.cpp palindrome or not.cpp sum of all digits.cpp gcd.cpp

```
1 #include <iostream>
2 int main() {
3     int num1, num2;
4     int gcd;
5     std::cout << "Enter two positive integers: ";
6     std::cin >> num1 >> num2;
7     if (num1 <= 0 || num2 <= 0) {
8         std::cout << "Error: Please enter positive integers." << std::endl;
9         return 1;
10    }
11    int smaller = (num1 < num2) ? num1 : num2;
12    int larger = (num1 >= num2) ? num1 : num2;
13    do {
14        gcd = smaller;
15        smaller = larger % smaller;
16        larger = gcd;
17    } while (smaller != 0);
18
19    // Output the result
20    std::cout << "GCD of " << num1 << " and " << num2 << " is: " << gcd << std::endl;
21
22    return 0;
23 }
24
```

Compiler Resources Compile Log Debug Find Results Close

Abort Compilation

Shorten compiler paths

-----  
- Errors: 0  
- Warnings: 0  
- Output Filename: C:\Users\mahic\OneDrive\Desktop\c++\gcd.exe  
- Output Size: 1.83260917663574 MiB  
- Compilation Time: 0.69s

Line: 12 Col: 47 Sel: 0 Lines: 24 Length: 646 Insert Done parsing in 0.031 seconds

C:\Users\mahic\OneDrive x + - □ ×

```
Enter two positive integers: 10
5
GCD of 10 and 5 is: 5

-----

Process exited after 5.058 seconds with return value 0
Press any key to continue . . .
```



```
1  #include <iostream>
2  int main() {
3      int number, originalNumber, sum = 0, digit;
4      std::cout << "Enter a positive integer: ";
5      std::cin >> number;
6      originalNumber = number;
7      while (number > 0) {
8          digit = number % 10;
9          sum += digit;
10         number /= 10;
11     }
12     std::cout << "Sum of digits of " << originalNumber << " = " << sum << std::endl;
13     return 0;
14 }
15
```

Abort Compilation

```
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\mahic\OneDrive\Desktop\c++\sum of all digits.exe
- Output Size: 1.8326301574707 MiB
- Compilation Time: 0.70s
```

```
C:\Users\mahic\OneDrive\Desktop\c++\sum of all digits.exe
Enter a positive integer: 425
Sum of digits of 425 = 11

-----
Process exited after 7.05 seconds with return value 0
Press any key to continue . . .
```



```
1  #include <iostream>
2  using namespace std;
3  bool isPerfect(int number) {
4      int sum = 0;
5      for (int i = 1; i <= number / 2; i++) {
6          if (number % i == 0) {
7              sum += i;
8          }
9      }
10     return (sum == number);
11 }
12 int main() {
13     int num;
14     cout << "Enter a number: ";
15     cin >> num;
16     if (isPerfect(num)) {
17         cout << num << " is a perfect number." << endl;
18     } else {
19         cout << num << " is not a perfect number." << endl;
20     }
21     return 0;
22 }
23
```

Abort Compilation

```
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\mahic\OneDrive\Desktop\c++\perfect number.cpp
- Output Size: 1.83264827728271 MiB
- Compilation Time: 1.23s
```

Enter a number: 5  
5 is not a perfect number.

-----  
Process exited after 9.509 seconds with return value 0  
Press any key to continue . . .



Search



```
1  #include <iostream>
2  #include <cstring>
3  int main() {
4      char str[100];
5      bool isPalindrome = true;
6      std::cout << "Enter a string: ";
7      std::cin.getline(str, 100);
8      int len = strlen(str);
9      int start = 0;
10     int end = len - 1;
11     while (start < end) {
12         if (str[start] != str[end]) {
13             isPalindrome = false;
14             break;
15         }
16         ++start;
17         --end;
18     }
19     if (isPalindrome) {
20         std::cout << "\"" << str << "\" is a palindrome." << std::endl;
21     } else {
22         std::cout << "\"" << str << "\" is not a palindrome." << std::endl;
23     }
24     return 0;
25 }
26
```

Abort Compilation

```
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\mahic\OneDrive\Desktop\c++\palindrome or not.cpp
- Output Size: 1.8326301574707 MiB
- Compilation Time: 0.88s
```



```
1  #include <iostream>
2  int main() {
3      int number;
4      bool isPrime = true;
5      std::cout << "Enter a positive integer: ";
6      std::cin >> number;
7      if (number <= 1) {
8          std::cout << number << " is not a prime number." << std::endl;
9          return 0;
10     }
11     for (int i = 2; i <= number / 2; ++i) {
12         if (number % i == 0) {
13             isPrime = false;
14             break;
15         }
16     }
17     if (isPrime) {
18         std::cout << number << " is a prime number." << std::endl;
19     } else {
20         std::cout << number << " is not a prime number." << std::endl;
21     }
22     return 0;
23 }
24
```

Abort Compilation

```
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\mahic\OneDrive\Desktop\c++\prime number.exe
- Output Size: 1.83260917663574 MiB
- Compilation Time: 1.00s
```

Enter a positive integer: 5  
5 is a prime number.

-----  
Process exited after 2.764 seconds with return value 0  
Press any key to continue . . .



```
1  #include <iostream>
2  int main() {
3      int n;
4      int term1 = 0, term2 = 1, nextTerm;
5      std::cout << "Enter the number of terms for Fibonacci series: ";
6      std::cin >> n;
7      std::cout << "Fibonacci Series up to " << n << " terms:" << std::endl;
8      std::cout << term1 << " ";
9      if (n > 1) {
10         std::cout << term2 << " ";
11     }
12     for (int i = 2; i < n; ++i) {
13         nextTerm = term1 + term2;
14         std::cout << nextTerm << " ";
15         term1 = term2;
16         term2 = nextTerm;
17     }
18     std::cout << std::endl;
19     return 0;
20 }
21
```

Abort Compilation

```
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\mahic\OneDrive\Desktop\c++\fibonacci.exe
- Output Size: 1.83260917663574 MiB
- Compilation Time: 0.75s
```

Enter the number of terms for Fibonacci series:

4

Fibonacci Series up to 4 terms:

0 1 1 2

```
-----
Process exited after 4.518 seconds with return v
alue 0
```

Press any key to continue . . . |

```
1  #include <iostream>
2  int main() {
3      int number;
4      std::cout << "Enter a number to print its multiplication table: ";
5      std::cin >> number;
6      std::cout << "Multiplication table of " << number << ":" << std::endl;
7      for (int i = 1; i <= 10; ++i)
8          std::cout << number << " * " << i << " = " << (number * i) << std::endl;
9
10     return 0;
11 }
12
```

Abort Compilation

```
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\mahic\OneDrive\Desktop\c++\multiplication table.exe
- Output Size: 1.83263301849365 MiB
- Compilation Time: 0.95s
```

```
C:\Users\mahic\OneDrive x + - □ x

Enter a number to print its multiplication table
: 4
Multiplication table of 4:
4 * 1 = 4
4 * 2 = 8
4 * 3 = 12
4 * 4 = 16
4 * 5 = 20
4 * 6 = 24
4 * 7 = 28
4 * 8 = 32
4 * 9 = 36
4 * 10 = 40

-----
Process exited after 9.633 seconds with return v
alue 0
Press any key to continue . . .
```



C:\Users\mahic\OneDrive\Desktop\c++\uppercase, lowercase - reverse.cpp - [Executing] - Dev-C++ 5.11

File Edit Search View Project Execute Tools AStyle Window Help

(globals)

Project Classes Debug

celsius to fahrenheit.cpp 11. celsius to fahrenheit.cpp nth fibonacci number.cpp smallest element missing -

```
1 #include <iostream>
2 #include <algorithm>
3 using namespace std;
4 string toUpperCase(const string& str) {
5     string result = str;
6     transform(result.begin(), result.end(), result.begin(), ::toupper);
7     return result;
8 }
9 string toLowerCase(const string& str) {
10    string result = str;
11    transform(result.begin(), result.end(), result.begin(), ::tolower);
12    return result;
13 }
14 string reverseString(const string& str) {
15    string reversed = str;
16    reverse(reversed.begin(), reversed.end());
17    return reversed;
18 }
19 int main() {
20    string input;
21    cout << "Enter a string: ";
22    getline(cin, input);
23    string upperCase = toUpperCase(input);
24    cout << "Uppercase: " << upperCase << endl;
25    string lowerCase = toLowerCase(input);
26    cout << "Lowercase: " << lowerCase << endl;
```

Compiler Resources Compile Log Debug Find Results Close

Abort Compilation

Shorten compiler paths

-----  
- Errors: 0  
- Warnings: 0  
- Output Filename: C:\Users\mahic\OneDrive\Desktop\c++\uppercase, lowercase  
- Output Size: 1.83993530273438 MiB  
- Compilation Time: 0.95s

Line: 28 Col: 46 Sel: 0 Lines: 31 Length: 927 Insert Done parsing in 0.031 seconds

C:\Users\mahic\OneDrive

Enter a string: Good  
Uppercase: GOOD  
Lowercase: good  
Reversed: dooG

-----

Process exited after 12.31 seconds with return value 0  
Press any key to continue . . .

```
1  #include <iostream>
2  int main() {
3      int number;
4      unsigned long long factorial = 1;
5      std::cout << "Enter a positive integer: ";
6      std::cin >> number;
7      if (number < 0) {
8          std::cout << "Error: Factorial is not defined for negative numbers." << std::endl;
9          return 1;
10     }
11     for (int i = 1; i <= number; ++i) {
12         factorial *= i;
13     }
14     std::cout << "Factorial of " << number << " = " << factorial << std::endl;
15     return 0;
16 }
17
```

Abort Compilation

```
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\mahic\OneDrive\Desktop\c++\factorial.exe
- Output Size: 1.83260917663574 MiB
- Compilation Time: 0.74s
```



```
1  #include <iostream>
2  #include <cmath>
3  int main() {
4      int rows, i, j, space;
5      std::cout << "Enter number of rows for the diamond pattern (must be odd): ";
6      std::cin >> rows;
7      for (i = 1; i <= rows; i += 2) {
8          for (space = 1; space <= (rows - i) / 2; ++space) {
9              std::cout << " ";
10             }
11             for (j = 1; j <= i; ++j) {
12                 std::cout << "*";
13             }
14             std::cout << std::endl;
15         }
16         for (i = rows - 2; i >= 1; i -= 2) {
17             for (space = 1; space <= (rows - i) / 2; ++space) {
18                 std::cout << " ";
19             }
20             for (j = 1; j <= i; ++j) {
21                 std::cout << "*";
22             }
23             std::cout << std::endl;
24         }
25         return 0;
26     }
27 }
```

Abort Compilation

```
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\mahic\OneDrive\Desktop\c++\diamond pattern.exe
- Output Size: 1.83262825012207 MiB
- Compilation Time: 0.88s
```