

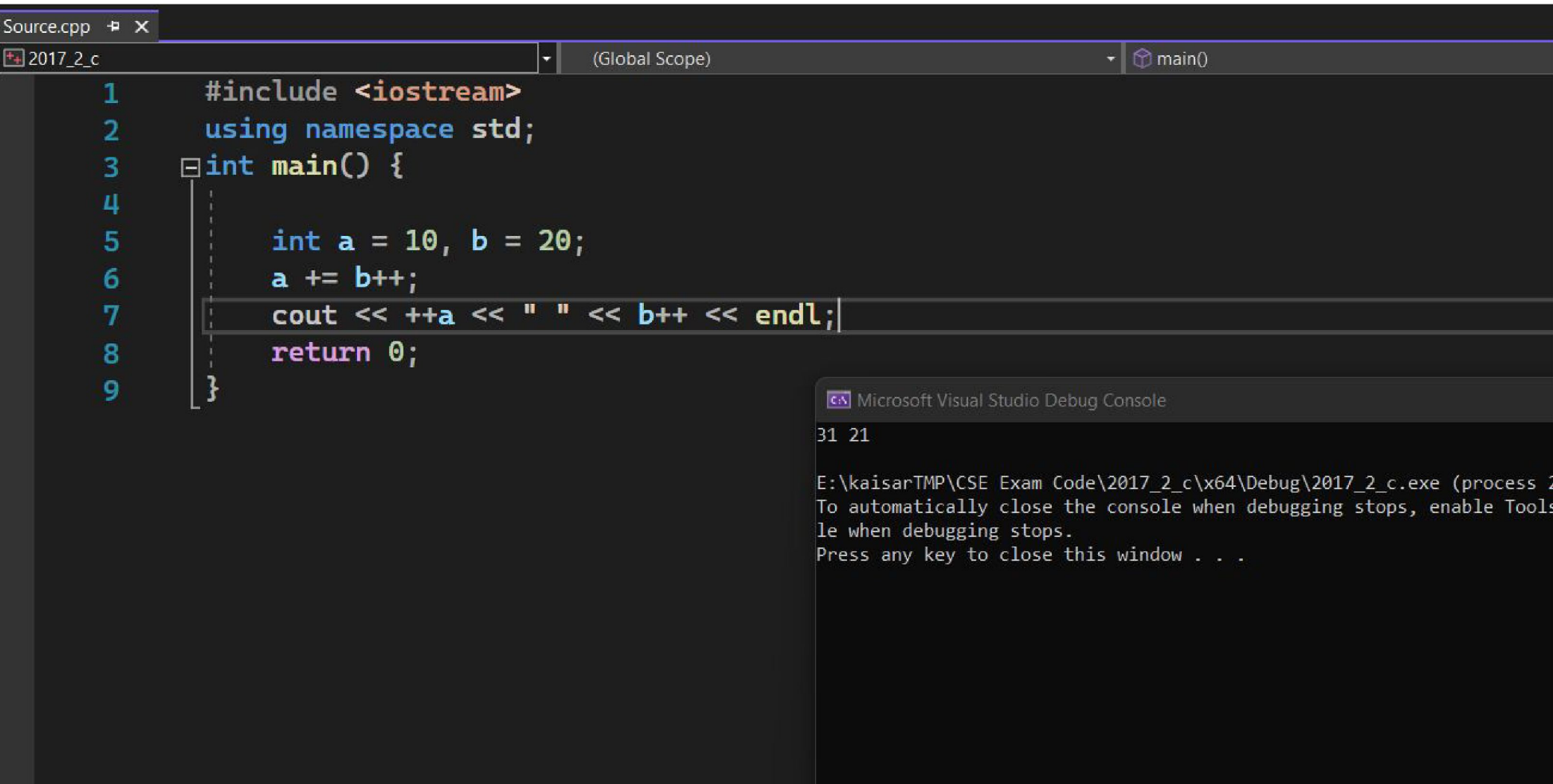
2017 - 2 - a - part - 1

```
Source.cpp 2017_2_a (Global Scope)
1  #include <iostream>
2  using namespace std;
3
4  bool is_prime(int n) {
5      if (n == 1) {
6          return false;
7      }
8
9      // This will loop from 2 to int(sqrt(x))
10     for (int i = 2; i * i <= n; i++) {
11         if (n % i == 0) {
12             return false;
13         }
14     }
15     // If we did not find any factor in the above loop,
16     // then n is a prime number
17     return true;
18 }
19
```

2017 - 2 - a - part - 2

```
Source.cpp 2017_2_a (Global Scope) is_prime(
13     }
14 }
15 // If we did not find any factor in the above loop,
16 // then n is a prime number
17 return true;
18 }
19
20 int main() {
21     int n;
22     cout << "Type a Num: ";
23     cin >> n;
24     if (is_prime(n)) {
25         cout << n << "is Prime." << endl;
26     }
27     else {
28         cout << n << " is not Prime." << endl;
29     }
30     return 0;
31 }
```

2017 - 2 - c



The image shows a Visual Studio IDE window with a C++ source file named '2017_2_c'. The code is as follows:

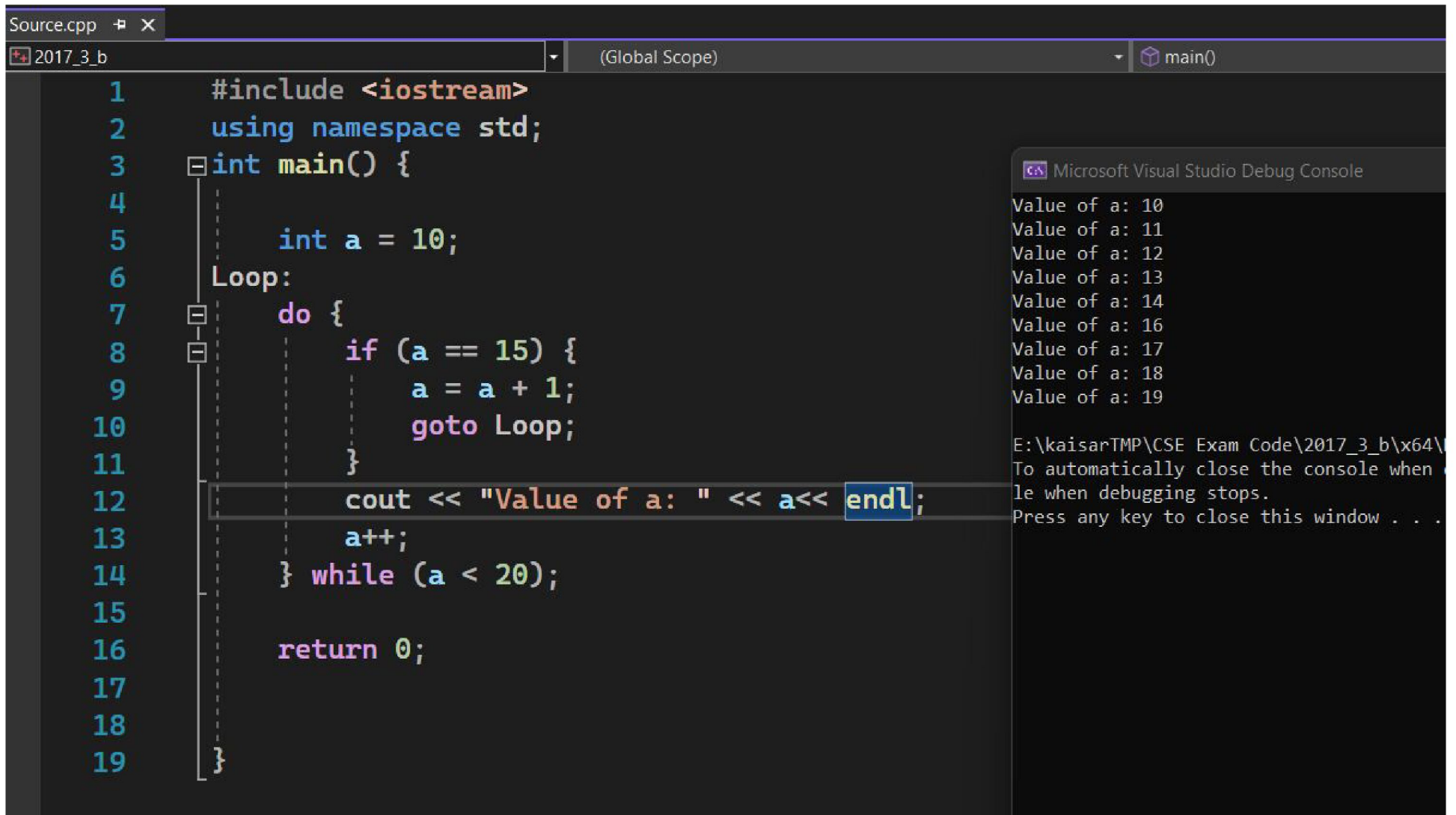
```
1  #include <iostream>
2  using namespace std;
3  int main() {
4      int a = 10, b = 20;
5      a += b++;
6      cout << ++a << " " << b++ << endl;
7      return 0;
8  }
```

The code is currently being debugged, as indicated by the 'main()' tab in the top right and the 'Microsoft Visual Studio Debug Console' window at the bottom right. The console shows the output of the program:

```
31 21

E:\kaisarTMP\CSE Exam Code\2017_2_c\x64\Debug\2017_2_c.exe (process 2
To automatically close the console when debugging stops, enable Tools
le when debugging stops.
Press any key to close this window . . .
```

2017 - 3 - b



The image shows a Visual Studio IDE window with a C++ source file named 'Source.cpp' and a debug console. The source code is as follows:

```
1  #include <iostream>
2  using namespace std;
3  int main() {
4      int a = 10;
5      Loop:
6      do {
7          if (a == 15) {
8              a = a + 1;
9              goto Loop;
10         }
11         cout << "Value of a: " << a << endl;
12         a++;
13     } while (a < 20);
14     return 0;
15 }
16
17
18
19
```

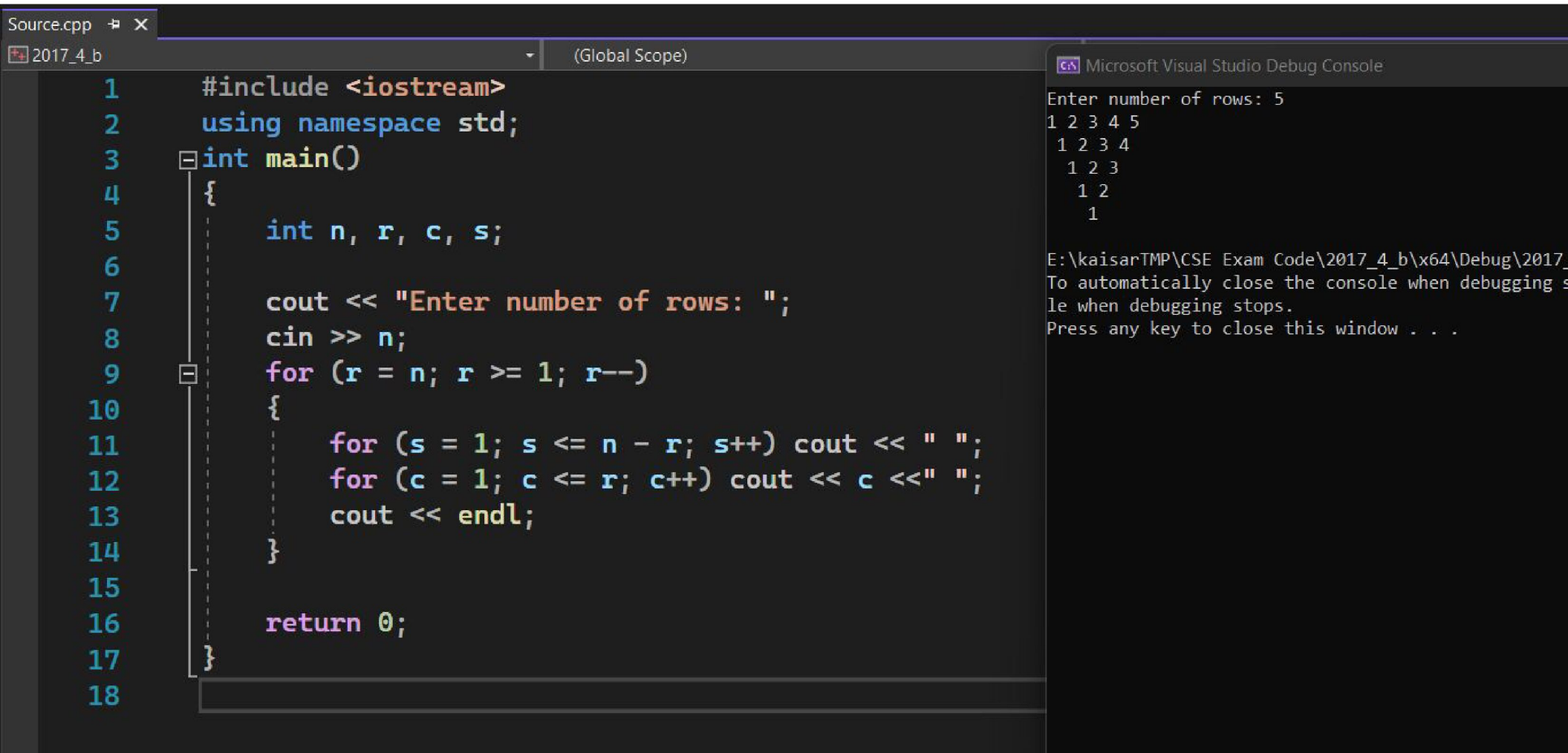
The debug console, titled 'Microsoft Visual Studio Debug Console', shows the output of the program:

```
Value of a: 10
Value of a: 11
Value of a: 12
Value of a: 13
Value of a: 14
Value of a: 16
Value of a: 17
Value of a: 18
Value of a: 19
```

Below the output, the console displays the file path and some instructions:

```
E:\kaisarTMP\CSE Exam Code\2017_3_b\x64\
To automatically close the console when
le when debugging stops.
Press any key to close this window . . .
```

2017 - 4 - b



The image shows a Visual Studio IDE with a C++ source file named 'Source.cpp' and a debug console window. The source code is a C++ program that prints a pattern of numbers. The debug console shows the output of the program, which is a pattern of numbers from 1 to 5 arranged in a triangular shape.

```
Source.cpp 2017_4_b (Global Scope)
1  #include <iostream>
2  using namespace std;
3  int main()
4  {
5      int n, r, c, s;
6
7      cout << "Enter number of rows: ";
8      cin >> n;
9      for (r = n; r >= 1; r--)
10     {
11         for (s = 1; s <= n - r; s++) cout << " ";
12         for (c = 1; c <= r; c++) cout << c << " ";
13         cout << endl;
14     }
15
16     return 0;
17 }
18
```

Microsoft Visual Studio Debug Console

```
Enter number of rows: 5
1 2 3 4 5
1 2 3 4
1 2 3
1 2
1
```

E:\kaisarTMP\CSE Exam Code\2017_4_b\x64\Debug\2017_4_b.exe: To automatically close the console when debugging stops, please click on the 'Close Console' button when debugging stops. Press any key to close this window . . .

2017 - 5 - b - OLD ERROR

```
Source.cpp  X
2017_5_b (Global Scope)

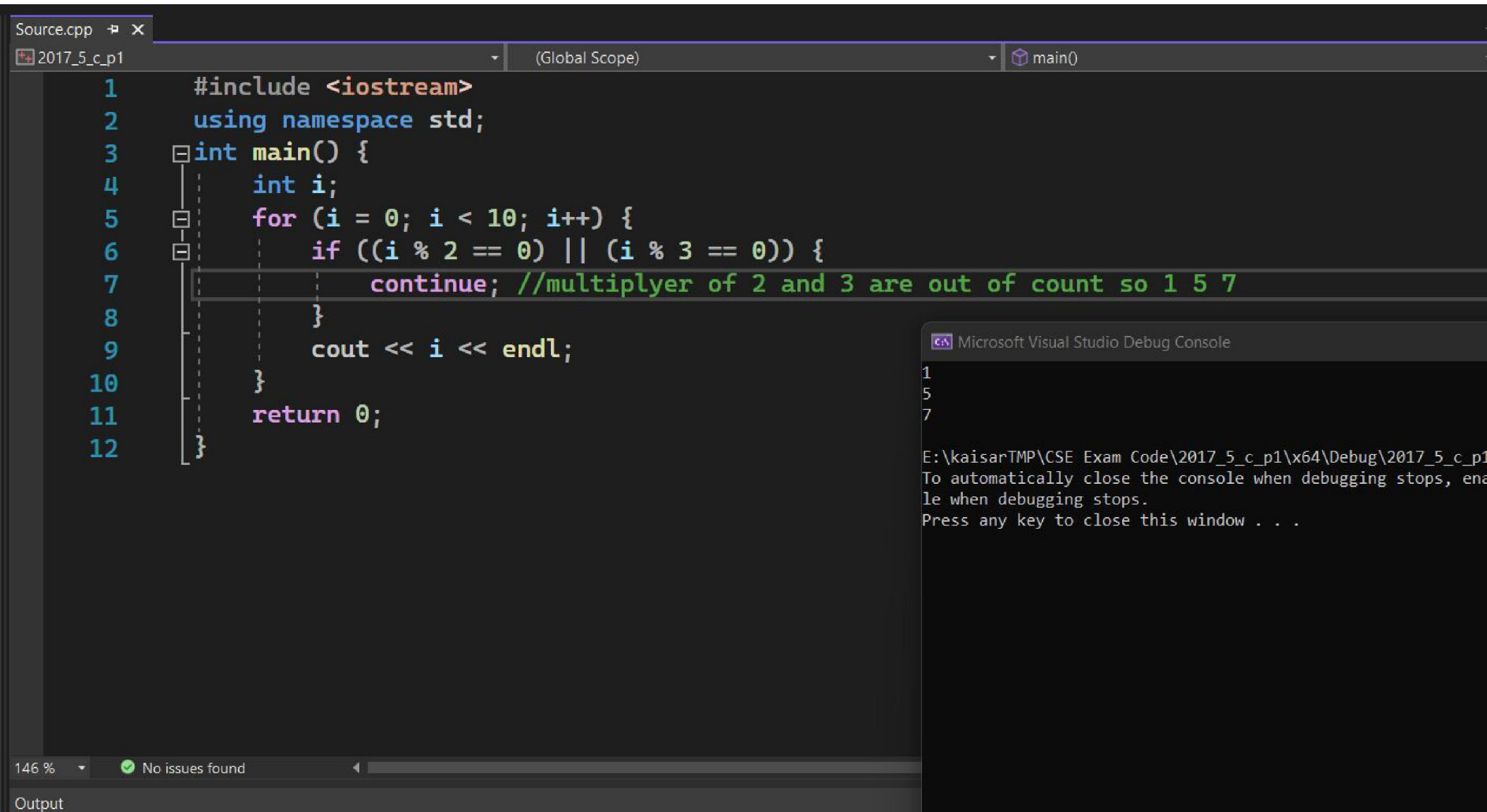
1  #include <iostream>
2
3
4  using namespace std;
5  struct student{
6      int id;
7      char name[20];
8      float percentage;
9  };
10
11  int main() {
12
13      student std;
14      std.id = 1;
15      strcpy_s(std.name, "Puja");
16      std.percentage = 86.5;
17      cout << "ID: " << std.id << endl;
18      cout << "Name: " << std.name << endl;
19      cout << "Percentage: " << std.percentage << endl;
20
21      return 0;
22  }
23
24
```


2017 - 5 - b - FIXED

```
Source.cpp  +  X
2017_5_b    (Global Scope)  main()

1  #include <iostream>
2
3  using namespace std;
4  struct student{
5      int id;
6      char name[20];
7      float percentage;
8  };
9
10 int main() {
11
12     student std;
13     id = 1;
14     strcpy(std.name, "Puja");
15     percentage = 86.5;
16     cout << "ID: " << std.id << endl;
17     cout << "Name: " << std.name << endl;
18     cout << "Percentage: " << std.percentage << endl;
19
20     return 0;
21 }
22
23
```

2017 - 5 - c - 1



```
Source.cpp 1X
2017_5_c_p1 (Global Scope) main()
1  #include <iostream>
2  using namespace std;
3  int main() {
4      int i;
5      for (i = 0; i < 10; i++) {
6          if ((i % 2 == 0) || (i % 3 == 0)) {
7              continue; //multiplier of 2 and 3 are out of count so 1 5 7
8          }
9          cout << i << endl;
10     }
11     return 0;
12 }
```

Microsoft Visual Studio Debug Console

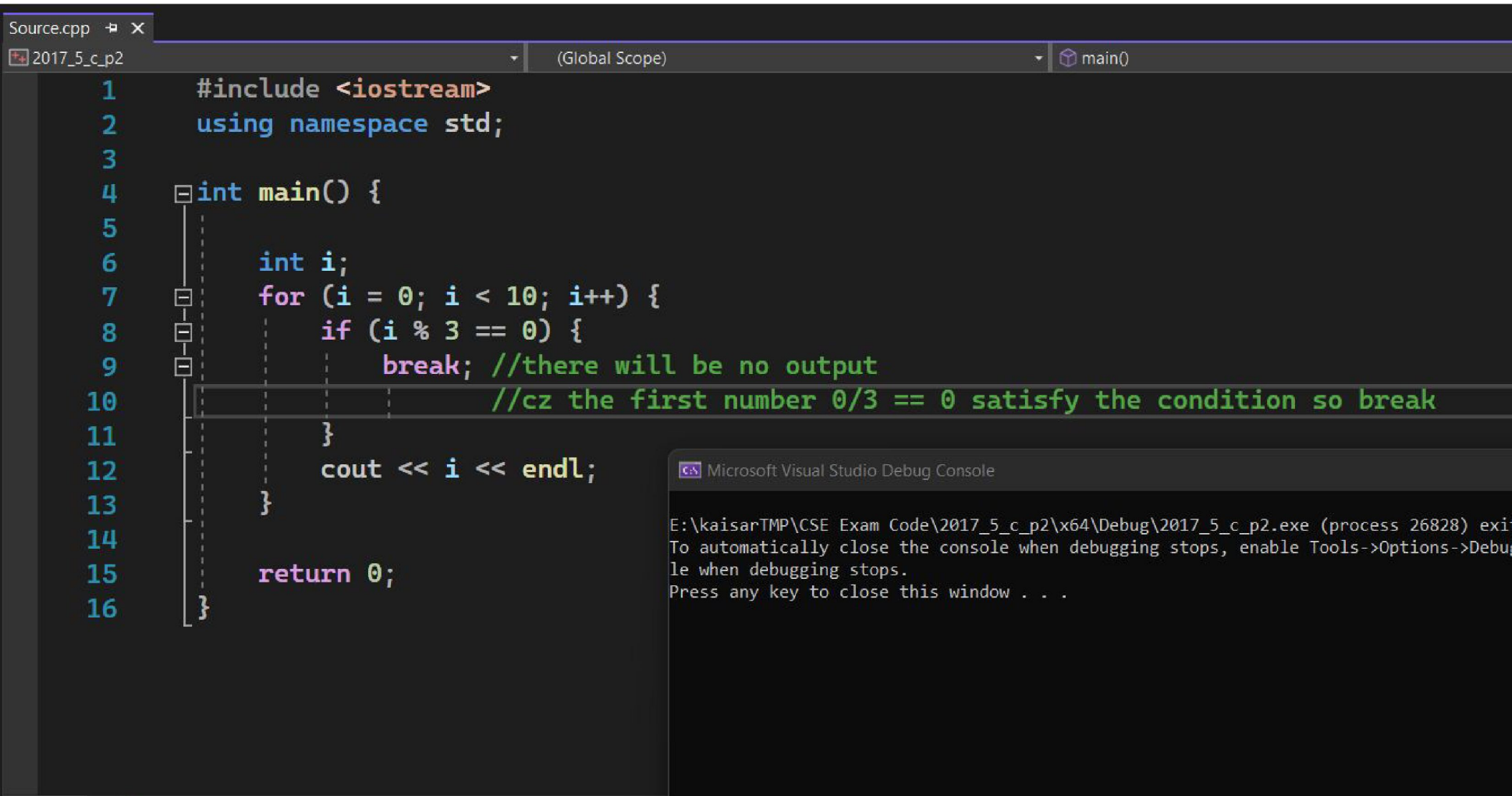
```
1
5
7

E:\kaiserTMP\CSE Exam Code\2017_5_c_p1\x64\Debug\2017_5_c_p1
To automatically close the console when debugging stops, ena
le when debugging stops.
Press any key to close this window . . .
```

146 % No issues found

Output

2017 - 5 - c - 2



The image shows a Visual Studio IDE with a C++ source file named 'Source.cpp' and a debug console window. The code is a simple C++ program that prints the first number divisible by 3 (0) and then breaks out of a loop. The debug console shows the execution path and the output of the program.

```
Source.cpp 2017_5_c_p2 (Global Scope) main()
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5
6      int i;
7      for (i = 0; i < 10; i++) {
8          if (i % 3 == 0) {
9              break; //there will be no output
10             //cz the first number 0/3 == 0 satisfy the condition so break
11         }
12         cout << i << endl;
13     }
14
15     return 0;
16 }
```

Microsoft Visual Studio Debug Console

E:\kaisarTMP\CSE Exam Code\2017_5_c_p2\x64\Debug\2017_5_c_p2.exe (process 26828) exited with code 0.
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.
Press any key to close this window . . .

2017 - 6 - a - part - 1

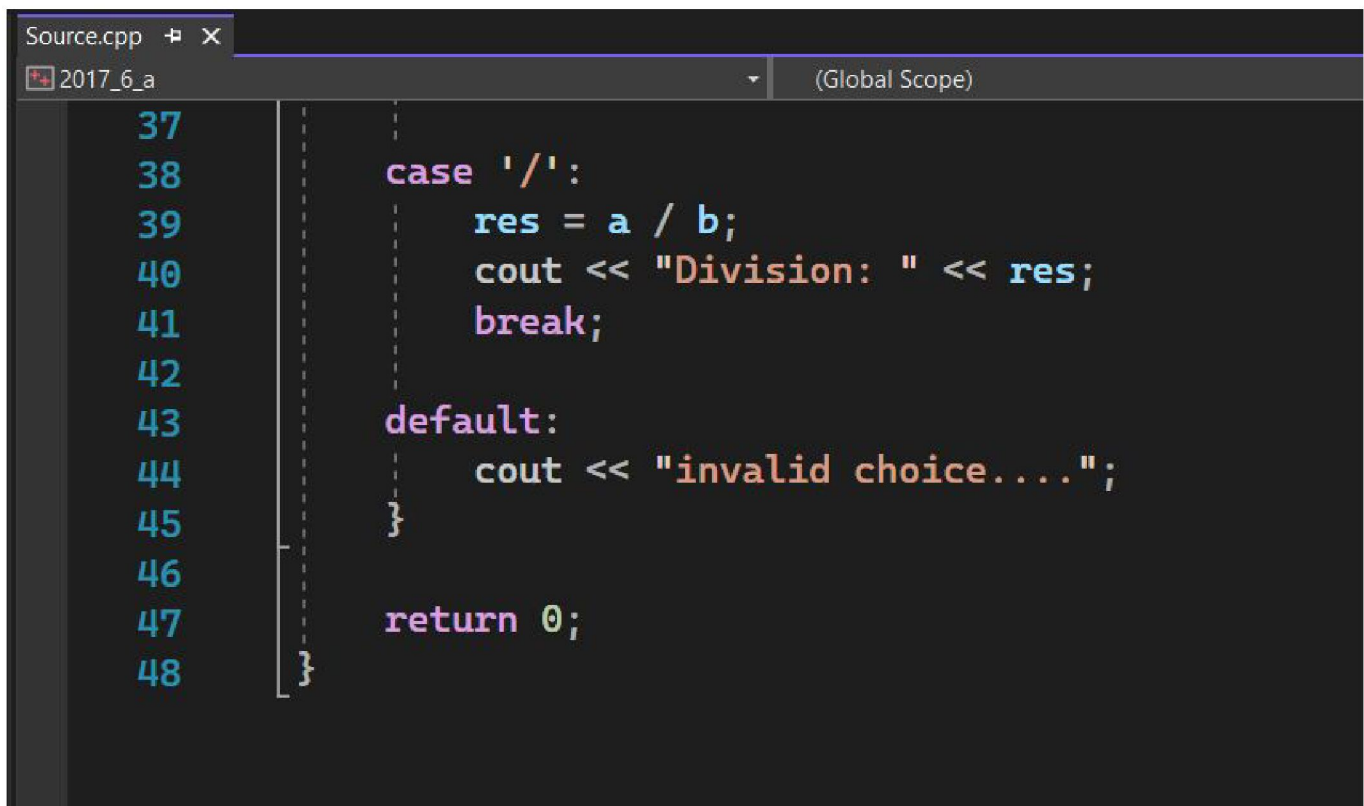
```
Source.cpp  X
2017_6_a    (Global Scope)

1  #include<iostream>
2  using namespace std;
3
4
5  int main()
6  {
7      char select;
8      double a, b, res;
9      cout << "'+' for Addition" << endl;
10     cout << "'-' for Subtraction" << endl;
11     cout << "'*' for Multiply" << endl;
12     cout << "'/' for Division" << endl;
13
14     cout << "\nEnter Your Choice: ";
15     cin >> select;
16     cout << "Enter the value of a:";
17     cin >> a;
18     cout << "Enter the value of b:";
19     cin >> b;
20
```

2017 - 6 - a - part - 2

```
Source.cpp  + X
2017_6_a    (Global Scope)
19  cin >> b;
20
21  switch (select)
22  {
23      case '+':
24          res = a + b;
25          cout << "Addition: " << res;
26          break;
27
28      case '-':
29          res = a - b;
30          cout << "Subtraction: " << res;
31          break;
32
33      case '*':
34          res = a * b;
35          cout << "Multiply: " << res;
36          break;
37
```

2017 - 6 - a - part - 3



```
Source.cpp  X
2017_6_a  (Global Scope)

37
38     case '/':
39         res = a / b;
40         cout << "Division: " << res;
41         break;
42
43     default:
44         cout << "invalid choice....";
45     }
46
47     return 0;
48 }
```

2017 - 7 - a

```
Source.cpp 2017_7_a (Global Scope)
1  #include<iostream>
2  using namespace std;
3  int main() {
4      int num, temp = 0, revr = 0, i = 0;
5      cin >> num;
6      while (num != 0) {
7          temp = num % 10;
8          revr = revr*10 + temp;
9          num /= 10;
10     }
11     cout << revr;
12
13     return 0;
14 }
15
16
```

2017 - 7 - b

```
Source.cpp  X
2017_7_b (Global Scope)

1  #include<iostream>
2  using namespace std;
3  int main() {
4      |
5      |   int r, c, s, n;
6      |   cin >> n;
7      |   for (r = n; r > 0; r--) {
8      |   |   for (c = r; c > 0; c--) {
9      |   |   |   cout << "*";
10     |   |   |   }
11     |   |   |   cout << endl;
12     |   |   }
13     |   }
14     |
15     |   return 0;
16     |
17     }
```