

# Operators in C

## Lecture 2 Assignments

1.



```
1  #include <stdio.h>           //enter stdio.h directive
2  int main (void){           //enter main function
3      int num_input, reversel, reverse2;    //declare variables as integers
4
5      printf("Please enter a 2-digit number:"); //print statement for the user input
6      scanf("%d",&num_input);           //using scanf to take a 2 digit number from the user
7
8      reversel= num_input % 10;           //taking the remainder by 10 to get the first digit of the reversed number
9      reverse2= (num_input / 10) % 10;    //dividing the input by 10 and then taking the remainder by 10
10
11     printf("Reverse: %d%d", reversel, reverse2); //printing the reversed number
12
13     return 0;
14 }
15
```

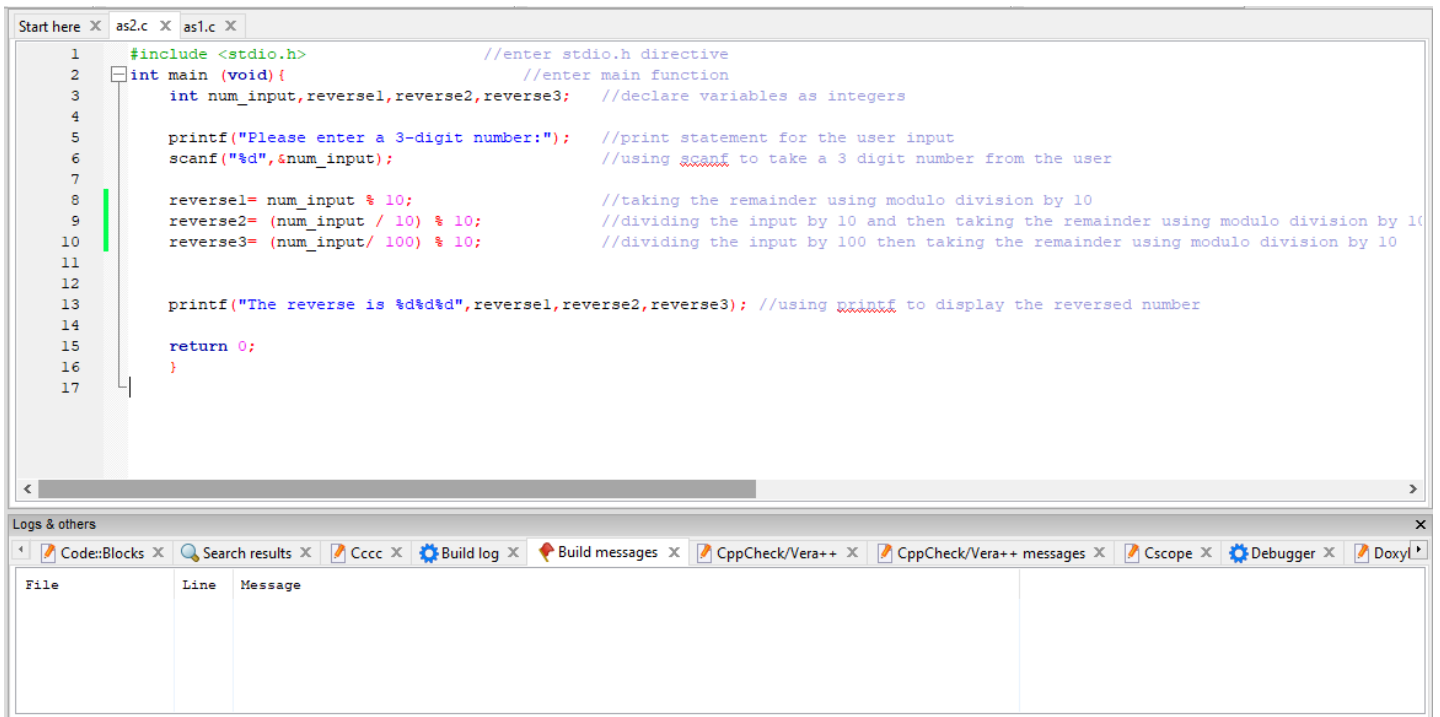
Logs & others

File	Line	Message
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"C:\Users\Asus\Documents\2nd\CMSC21\Lecture2\Lecture Assignment\as1.exe"

```
Please enter a 2-digit number:52
The reverse is 25
Process returned 0 (0x0)   execution time : 3.375 s
Press any key to continue.
```

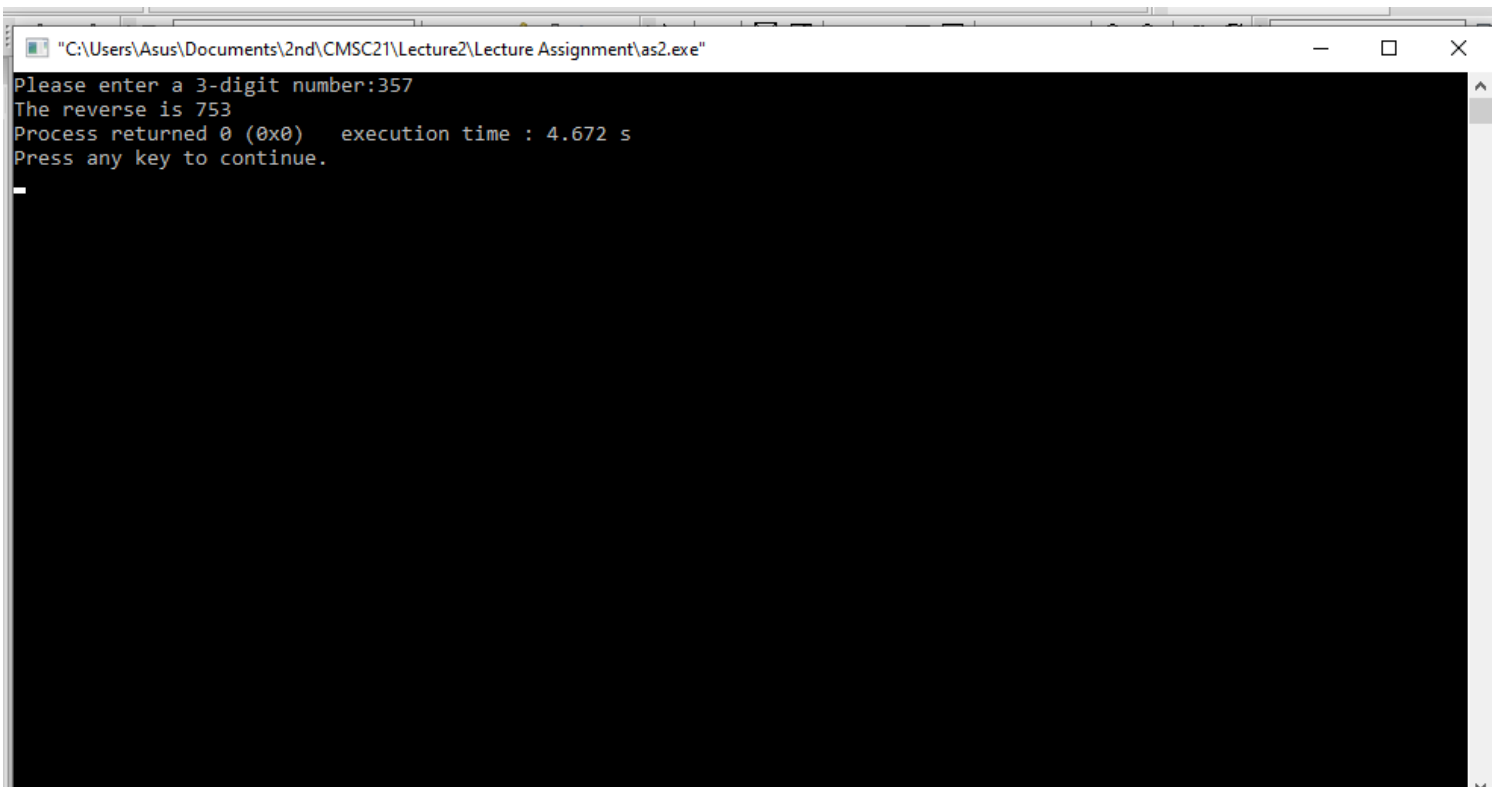
2.



The screenshot shows a C++ IDE with two tabs: 'as2.c' and 'as1.c'. The 'as2.c' tab is active and contains the following code:

```
1  #include <stdio.h>           //enter stdio.h directive
2  int main (void){           //enter main function
3      int num_input, reverse1, reverse2, reverse3; //declare variables as integers
4
5      printf("Please enter a 3-digit number:"); //print statement for the user input
6      scanf("%d", &num_input); //using scanf to take a 3 digit number from the user
7
8      reverse1= num_input % 10; //taking the remainder using modulo division by 10
9      reverse2= (num_input / 10) % 10; //dividing the input by 10 and then taking the remainder using modulo division by 10
10     reverse3= (num_input/ 100) % 10; //dividing the input by 100 then taking the remainder using modulo division by 10
11
12
13     printf("The reverse is %d%d%d", reverse1, reverse2, reverse3); //using printf to display the reversed number
14
15     return 0;
16 }
17
```

Below the code editor is a 'Logs & others' panel with tabs for 'Code::Blocks', 'Search results', 'Cccc', 'Build log', 'Build messages', 'CppCheck/Vera++', 'CppCheck/Vera++ messages', 'Cscope', 'Debugger', and 'Doxy'. The 'Build log' tab is selected, showing a table with columns 'File', 'Line', and 'Message'.



The screenshot shows a Windows command prompt window titled '"C:\Users\Asus\Documents\2nd\CMSC21\Lecture2\Lecture Assignment\as2.exe"'. The output of the program is as follows:

```
Please enter a 3-digit number:357
The reverse is 753
Process returned 0 (0x0)   execution time : 4.672 s
Press any key to continue.
```

3.

a. Output= 1

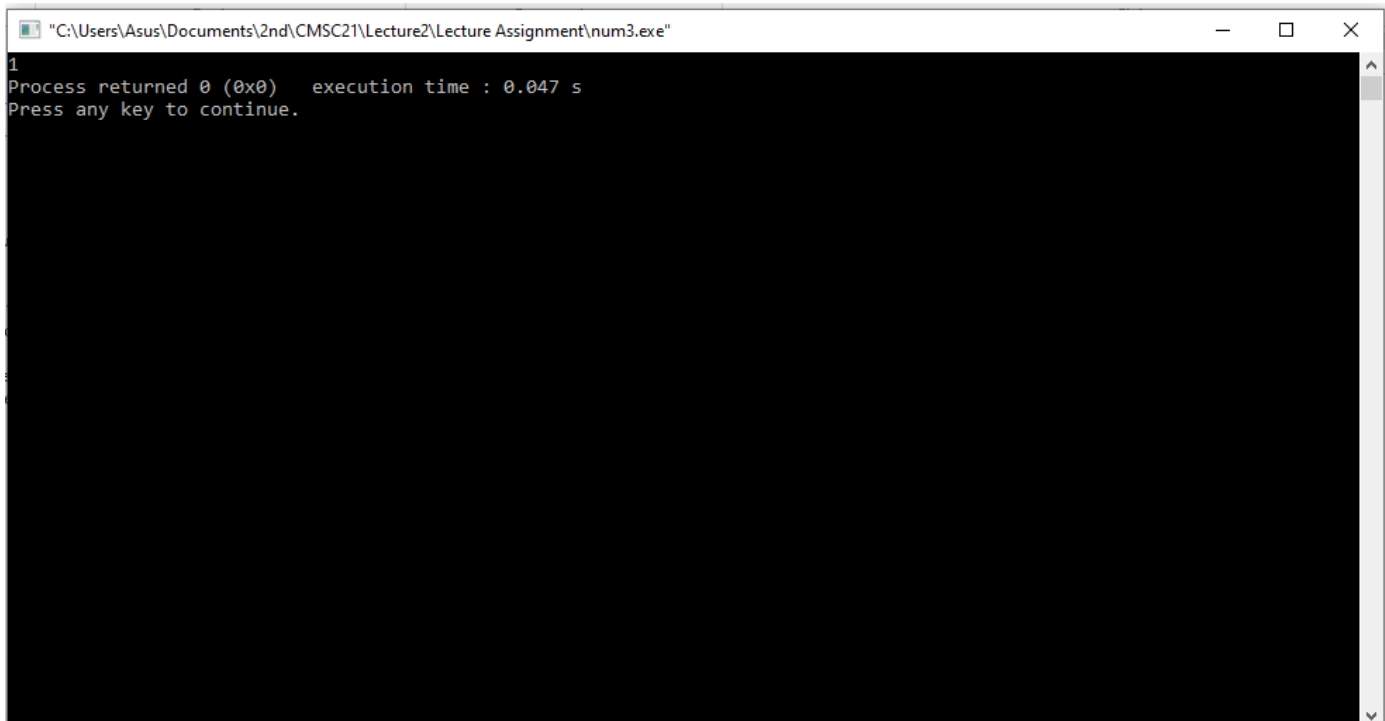


The screenshot shows a code editor with a C program and its build logs. The code is as follows:

```
1 #include <stdio.h>
2 int main (void) {
3     int i,j,k;
4
5     i = 3; j = 4; k = 5;
6
7     printf("%d", i < j || ++j < k);
8
9 }
10
```

The build logs show the following messages:

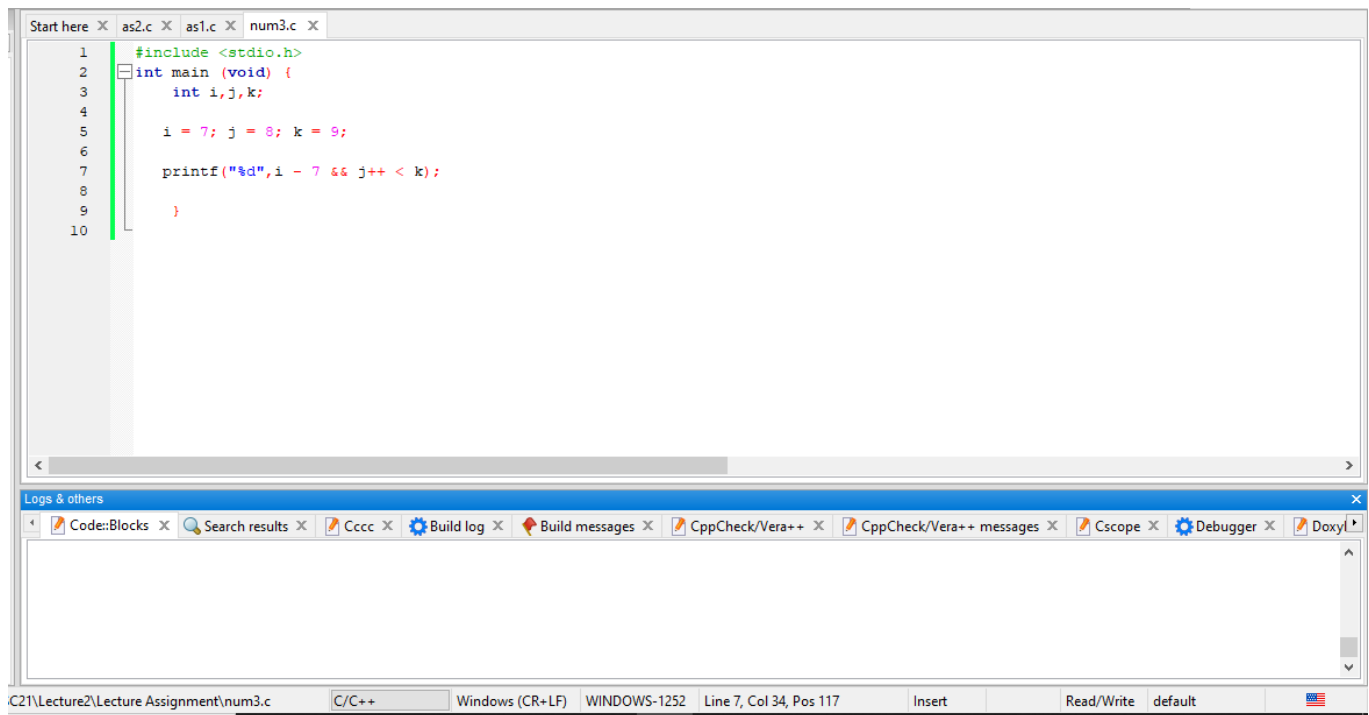
```
=== Build file: "no target" in "no project" (compiler: unknown) ===
=== Build finished: 0 error(s), 0 warning(s) (0 minute(s), 5 second(s)) ===
```



The screenshot shows a command prompt window titled "C:\Users\Asus\Documents\2nd\CMSC21\Lecture2\Lecture Assignment\num3.exe". The output is as follows:

```
1
Process returned 0 (0x0)   execution time : 0.047 s
Press any key to continue.
```

b. **Output= 0**

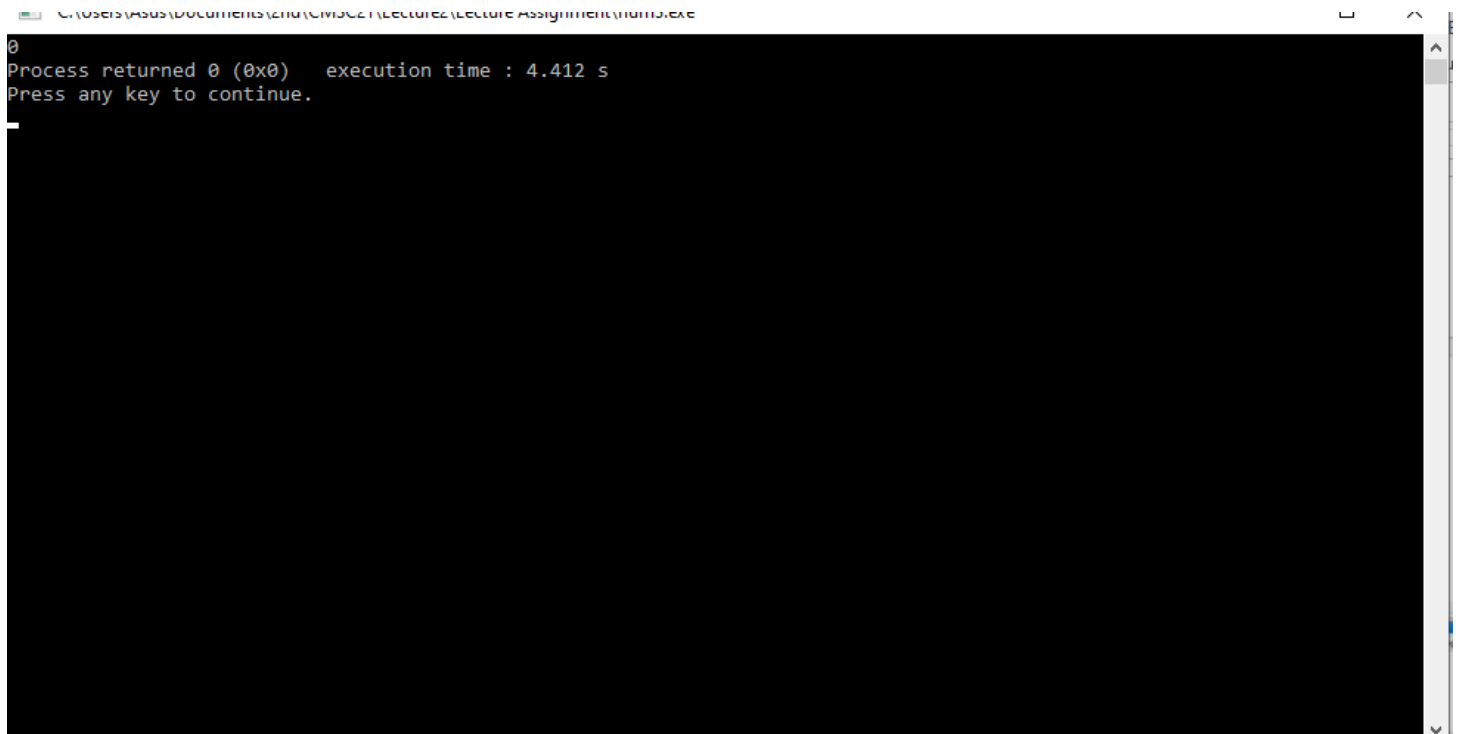


```
1 #include <stdio.h>
2 int main (void) {
3     int i,j,k;
4
5     i = 7; j = 8; k = 9;
6
7     printf("%d",i - 7 && j++ < k);
8
9 }
10
```

Logs & others

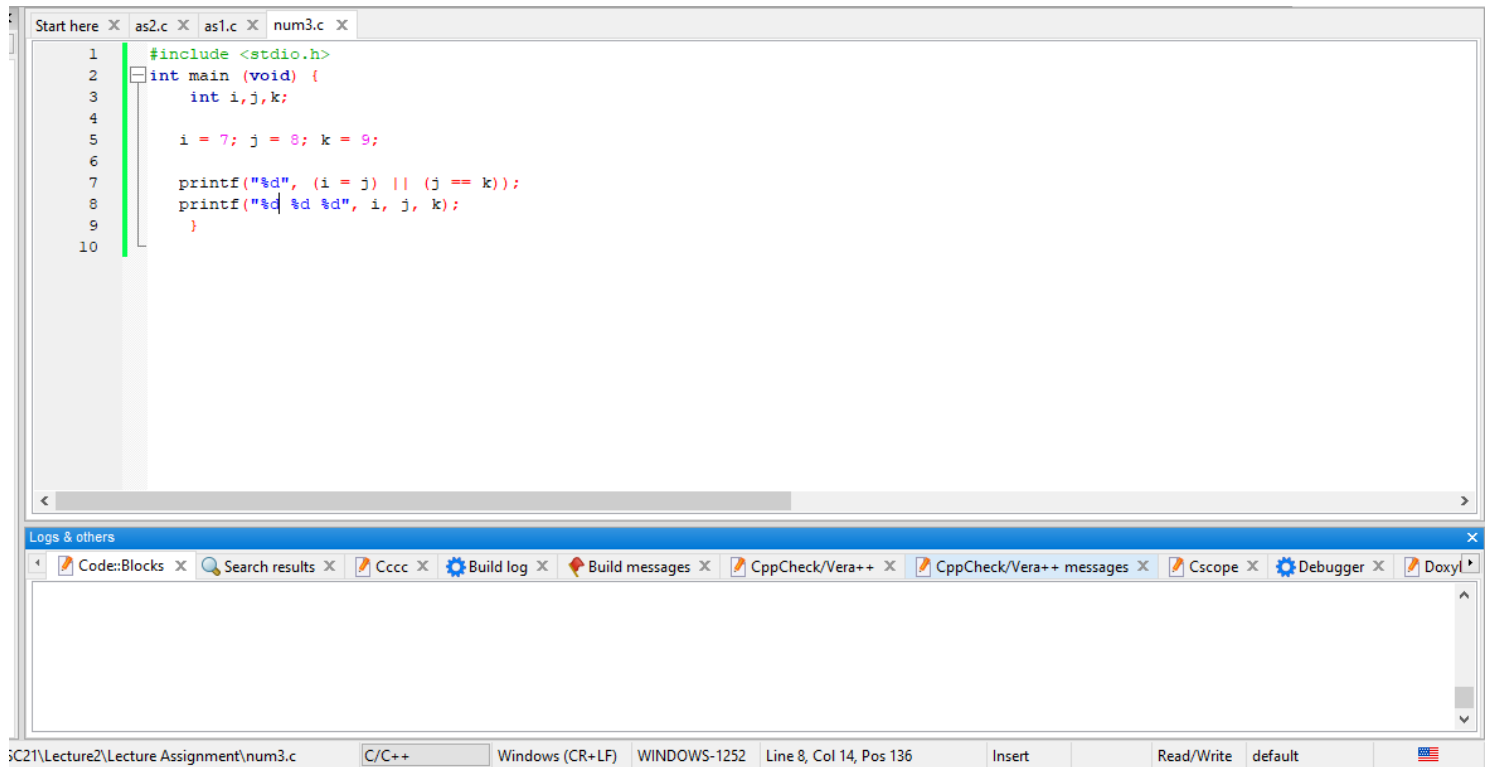
Code::Blocks Search results Cccc Build log Build messages CppCheck/Vera++ CppCheck/Vera++ messages Cscope Debugger Doxy

C21\Lecture2\Lecture Assignment\num3.c C/C++ Windows (CR+LF) WINDOWS-1252 Line 7, Col 34, Pos 117 Insert Read/Write default



```
C:\Users\ASUS\Documents\2nd\CMSC21\Lecture2\Lecture Assignment\num3.exe
0
Process returned 0 (0x0)   execution time : 4.412 s
Press any key to continue.
```

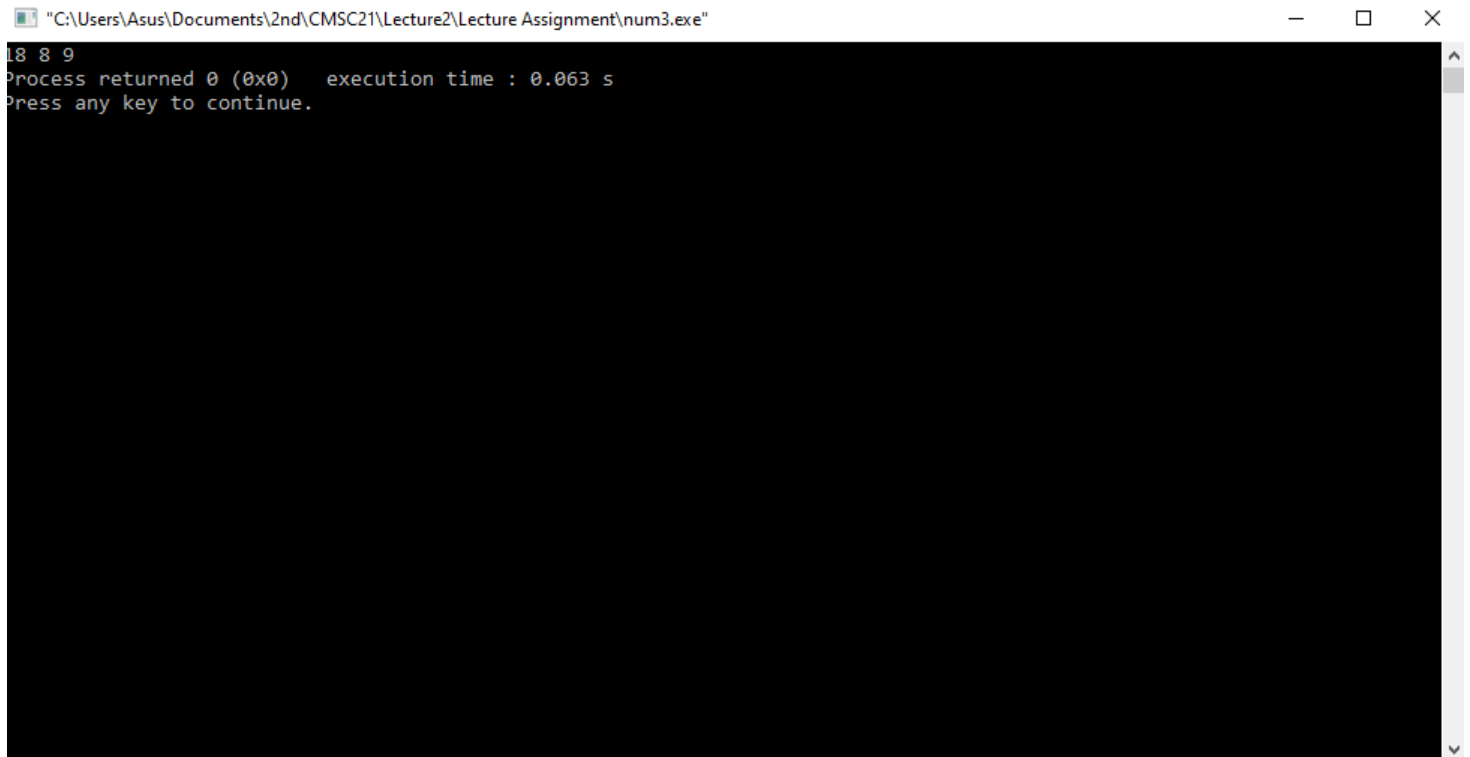
c. **Output= 18 8 9**



The screenshot shows a code editor with a file named `num3.c` open. The code is as follows:

```
1 #include <stdio.h>
2 int main (void) {
3     int i,j,k;
4
5     i = 7; j = 8; k = 9;
6
7     printf("%d", (i == j) || (j == k));
8     printf("%d %d %d", i, j, k);
9 }
10
```

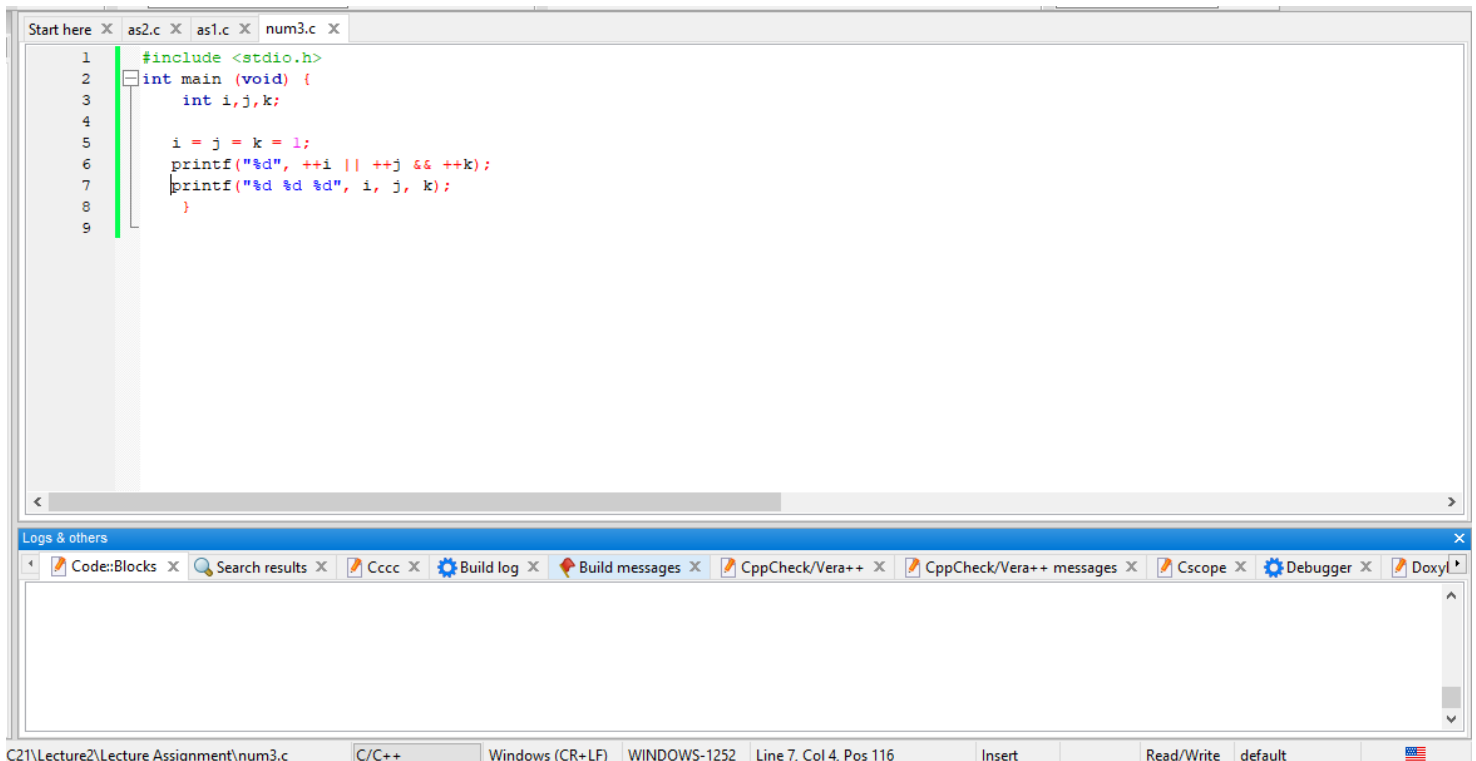
Below the code editor is a "Logs & others" panel with tabs for Code::Blocks, Search results, Cccc, Build log, Build messages, CppCheck/Vera++, CppCheck/Vera++ messages, Cscope, Debugger, and Doxy. The status bar at the bottom indicates the file is `C:\Users\Asus\Documents\2nd\CMSC21\Lecture2\Lecture Assignment\num3.c`, the language is C/C++, and the cursor is at Line 8, Col 14, Pos 136.



The screenshot shows a command prompt window titled `"C:\Users\Asus\Documents\2nd\CMSC21\Lecture2\Lecture Assignment\num3.exe"`. The output of the program is:

```
18 8 9
Process returned 0 (0x0)   execution time : 0.063 s
Press any key to continue.
```

d. **Output=** 12 1 1



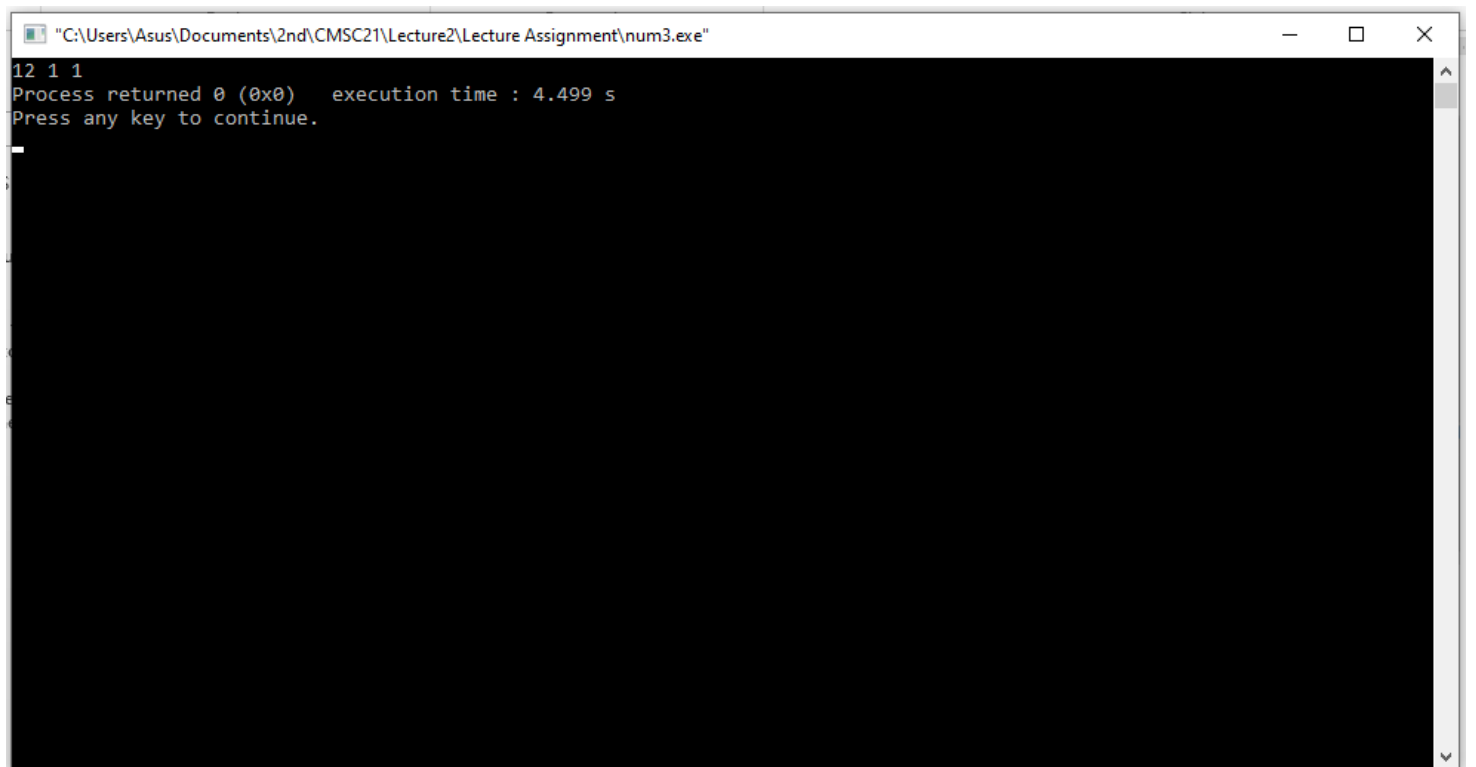
The screenshot shows a code editor with a file named `num3.c` open. The code is as follows:

```
1 #include <stdio.h>
2 int main (void) {
3     int i,j,k;
4
5     i = j = k = 1;
6     printf("%d", ++i || ++j && ++k);
7     printf("%d %d %d", i, j, k);
8 }
9
```

Below the code editor is a "Logs & others" panel with several tabs: `Code::Blocks`, `Search results`, `Cccc`, `Build log`, `Build messages`, `CppCheck/Vera++`, `CppCheck/Vera++ messages`, `Cscope`, `Debugger`, and `Doxy`. The `Build log` tab is active, showing the output of the program:

```
12 1 1
Process returned 0 (0x0)   execution time : 4.499 s
Press any key to continue.
```

The status bar at the bottom indicates the file is `C21\Lecture2\Lecture Assignment\num3.c`, the language is `C/C++`, and the cursor is at `Line 7, Col 4, Pos 116`.



The screenshot shows a command prompt window titled `"C:\Users\Asus\Documents\2nd\CMSC21\Lecture2\Lecture Assignment\num3.exe"`. The output of the program is displayed as follows:

```
12 1 1
Process returned 0 (0x0)   execution time : 4.499 s
Press any key to continue.
```