ASSIGNMENT – 1

CH SAI KRISHNA
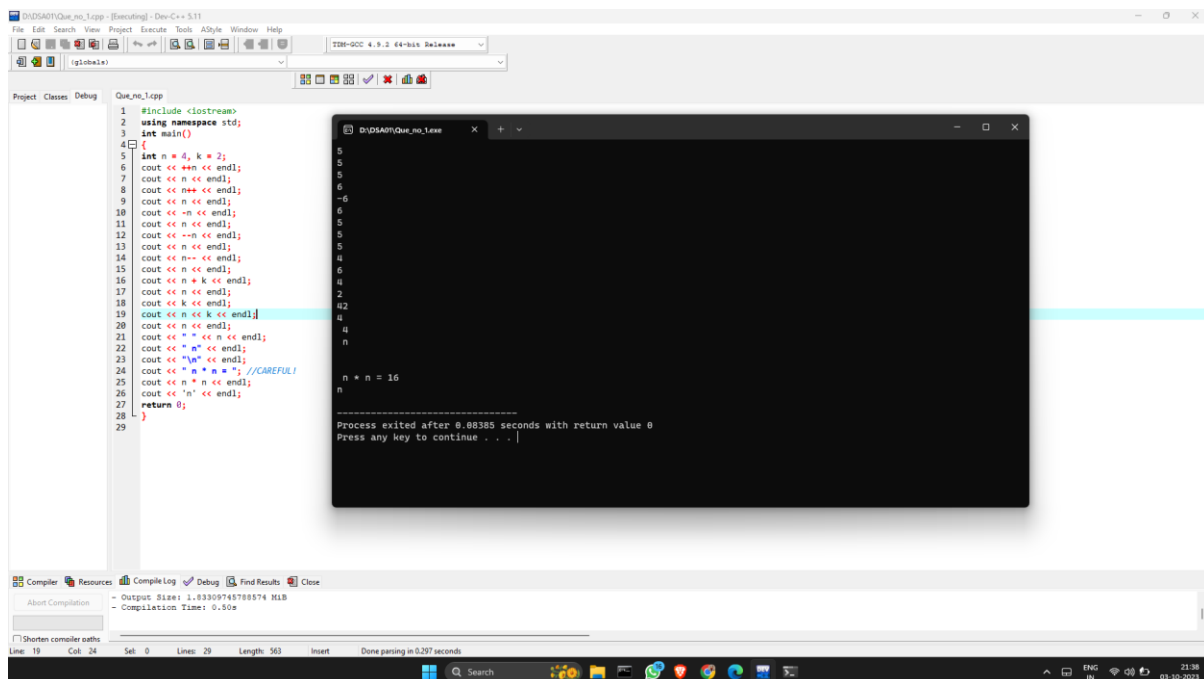
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1. What is the exact output of the program below?

ANS:

OUTPUT

2. What is the output of the program below?

ANS: OUTPUT

```cpp
#include <iostream>
using namespace std;
int main()
{
    int n = 3;
    while (n >= 0)
    {
        cout << n * n << endl;
        --n;
    }
    cout << n << endl;
    while (n < 4)
        cout << ++n << endl;
    cout << n << endl;
    while (n >= 0)
        cout << (n /= 2) << endl;
    return 0;
}
```

```
[New Thread 16188.0x3fd4]
[New Thread 16188.0x29b4]
Loaded 'C:\WINDOWS\SysWOW64\kernel32.dll'. Symbols loaded.
Loaded 'C:\WINDOWS\SysWOW64\KernelBase.dll'. Symbols loaded.
Loaded 'C:\WINDOWS\SysWOW64\msvcrt.dll'. Symbols loaded.
Loaded 'C:\MinGW\bin\libgcc_s_dw2-1.dll'. Symbols loaded.
Loaded 'C:\MinGW\bin\libstdc++-6.dll'. Symbols loaded.
9
4
1
2 0
1
2
3
2 4
2
1
119976 0
```
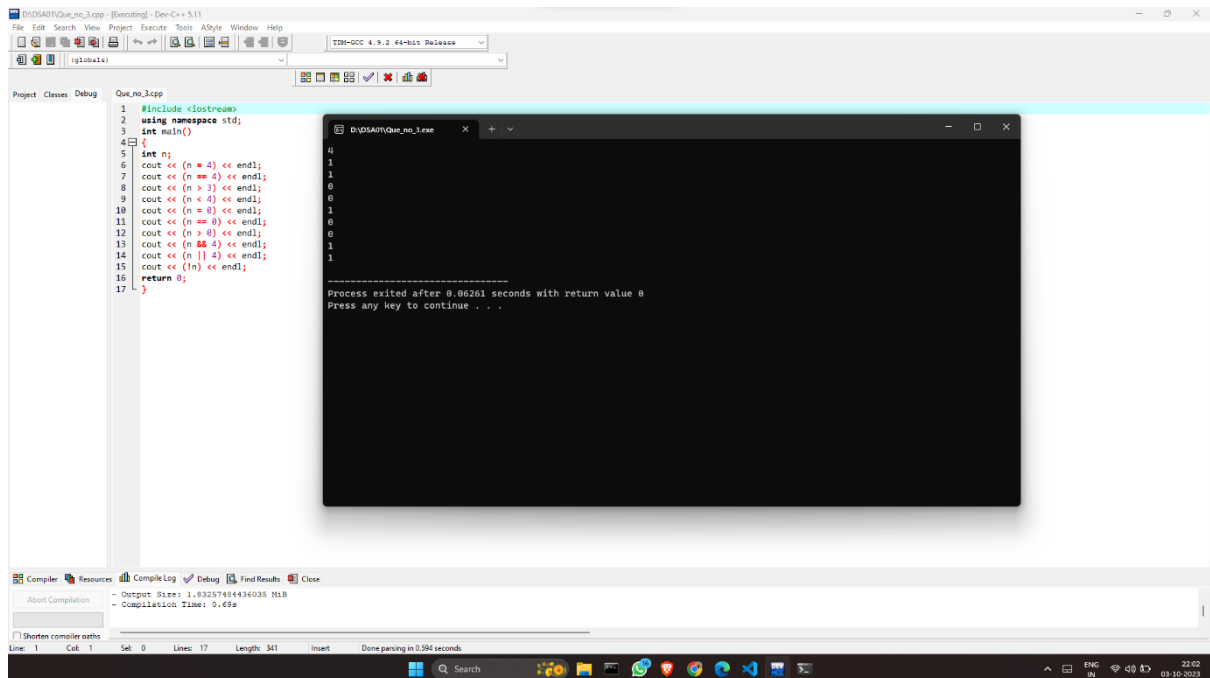
3. What is the output of the program below?

ANS: OUTPUT


```cpp
#include <iostream>
using namespace std;
int main()
{
    int n;
    cout << (n = 4) << endl;
    cout << (n == 4) << endl;
    cout << (n > 3) << endl;
    cout << (n < 4) << endl;
    cout << (n = 0) << endl;
    cout << (n == 0) << endl;
    cout << (n > 0) << endl;
    cout << (n && 4) << endl;
    cout << (n || 4) << endl;
    cout << (!n) << endl;
    return 0;
}
```
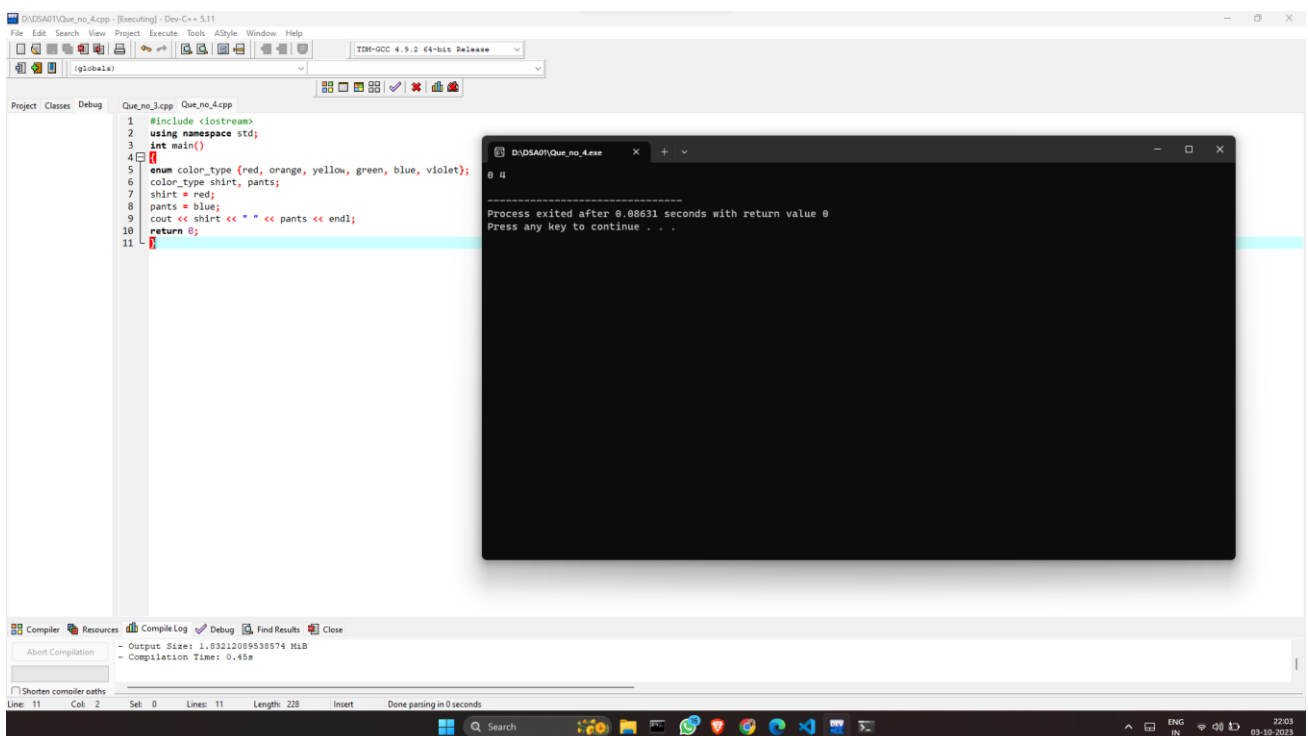
Output:
```
4
1
1
0
0
1
0
0
1
1

--------------------------------
Process exited after 0.06261 seconds with return value 0
Press any key to continue . . .
```

4.What is the output of the following program?

ANS : OUTPUT


```cpp
#include <iostream>
using namespace std;
int main()
{
    enum color_type {red, orange, yellow, green, blue, violet};
    color_type shirt, pants;
    shirt = red;
    pants = blue;
    cout << shirt << " " << pants << endl;
    return 0;
}
```

Output:
```
0 4

----------------------------------------
Process exited after 0.08631 seconds with return value 0
Press any key to continue . . .
```
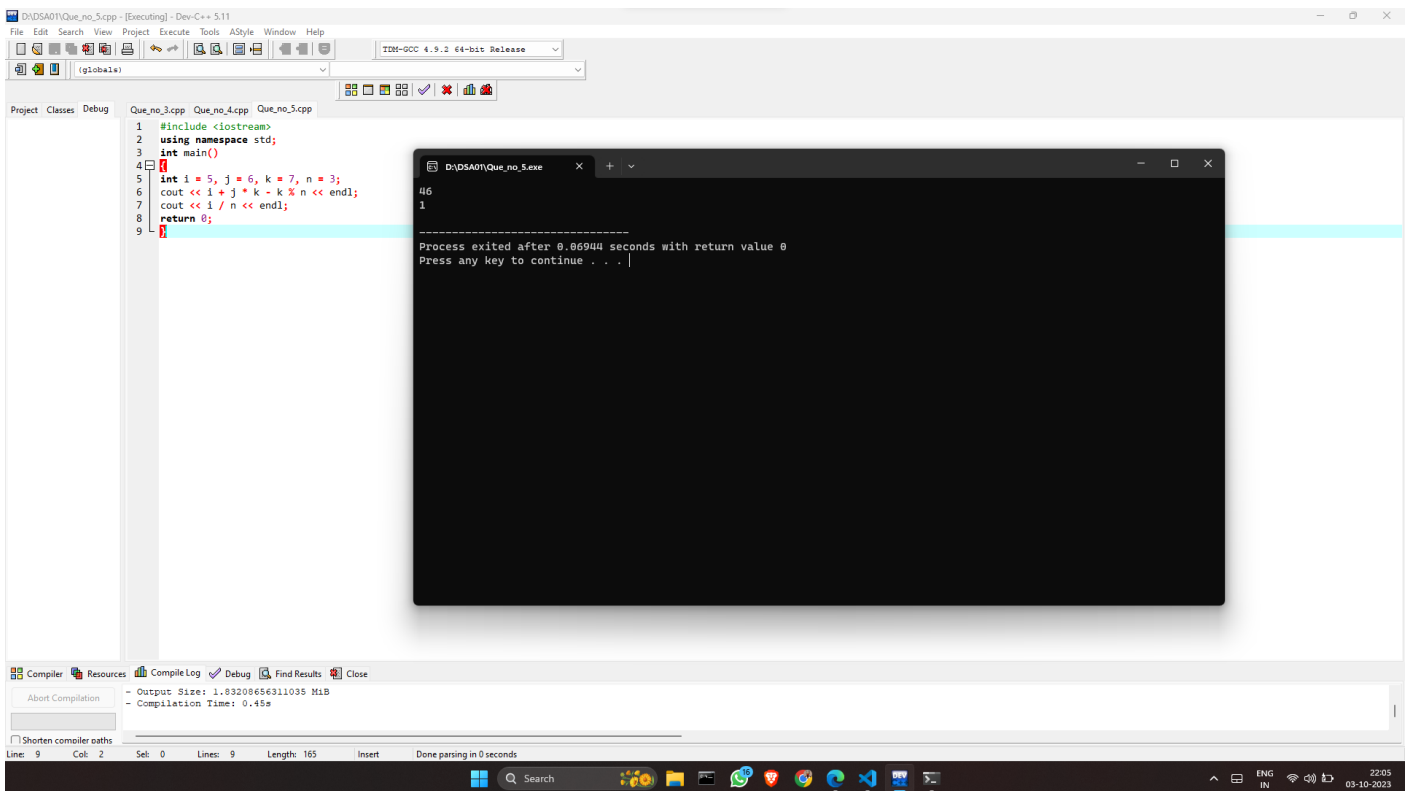
5. What is the output when the following code fragment is executed?

ANS: OUTPUT

```cpp
#include <iostream>
using namespace std;
int main()
{
    int i = 5, j = 6, k = 7, n = 3;
    cout << i + j * k - k % n << endl;
    cout << i / n << endl;
    return 0;
}
```

```
46
1

--------------------------------
Process exited after 0.06944 seconds with return value 0
Press any key to continue . . .
```

6. What is the output when the following code fragment is executed?

ANS: OUTPUT

```cpp
#include <iostream>
using namespace std;
int main()
{
    int found = 0, count = 5;
    if (!found || --count == 0)
    cout << "danger" << endl;
    cout << "count = " << count << endl;
    return 0;
}
```

```
danger
count = 5

--------------------------------
Process exited after 0.07004 seconds with return value 0
Press any key to continue . . .
```
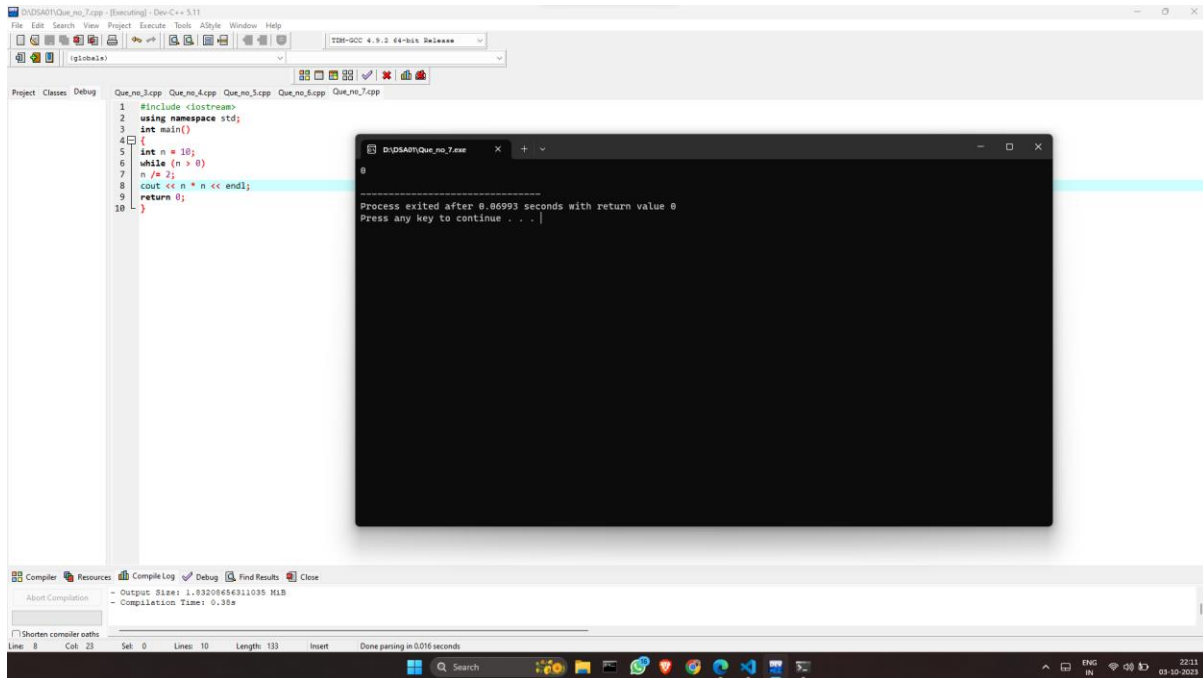
7. The loop shown below has been written by an inexperienced C++ programmer. The behavior of the loop is not correctly represented by the formatting.

a. What is the output of the loop as it is written?

ANS:
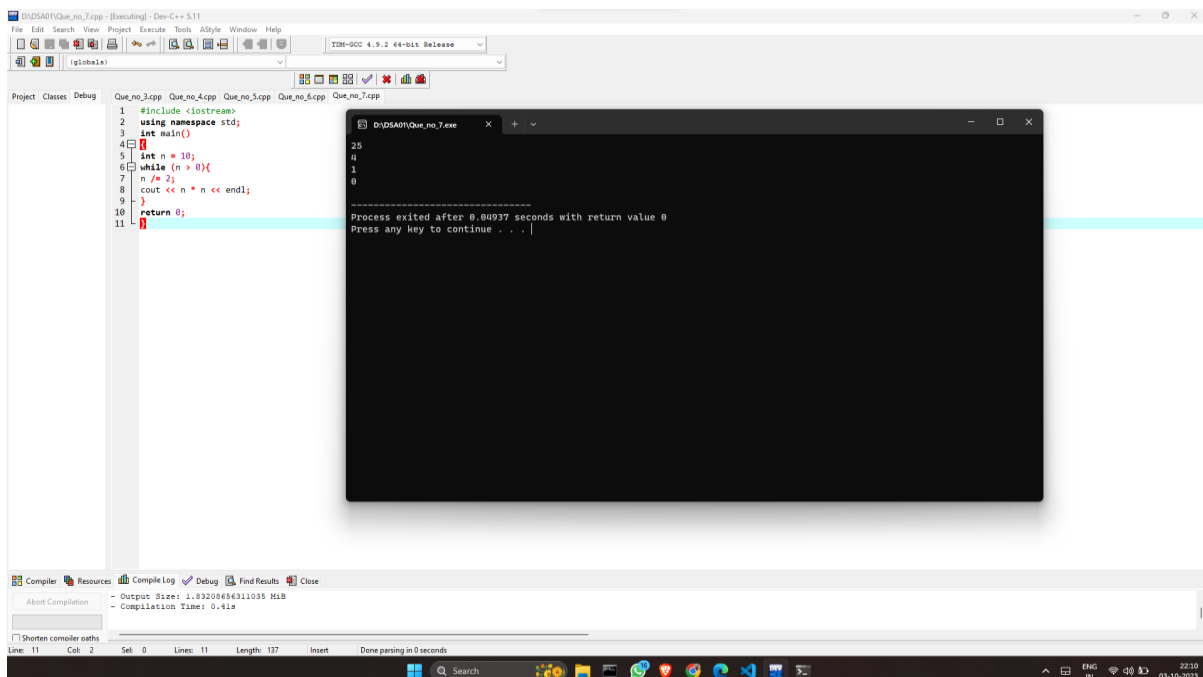
b. Correct the syntax of the loop so that the logic of the corrected loop corresponds to the formatting of the original loop. What is the output of the corrected loop?

ANS:

c. Correct the formatting of the (original) loop so that the new format reflects the logical behavior of the original loop.

8. Remove all the unnecessary tests from the nested conditional statement below

ANS: OUTPUT

9. Answer the questions below concerning the following fragment of code.

a. What will be the output of the fragment above if the interactive user enters the integer value 0 ?

b. What will be the output of the fragment above if the interactive user enters the integer value 15 ?

ANS:

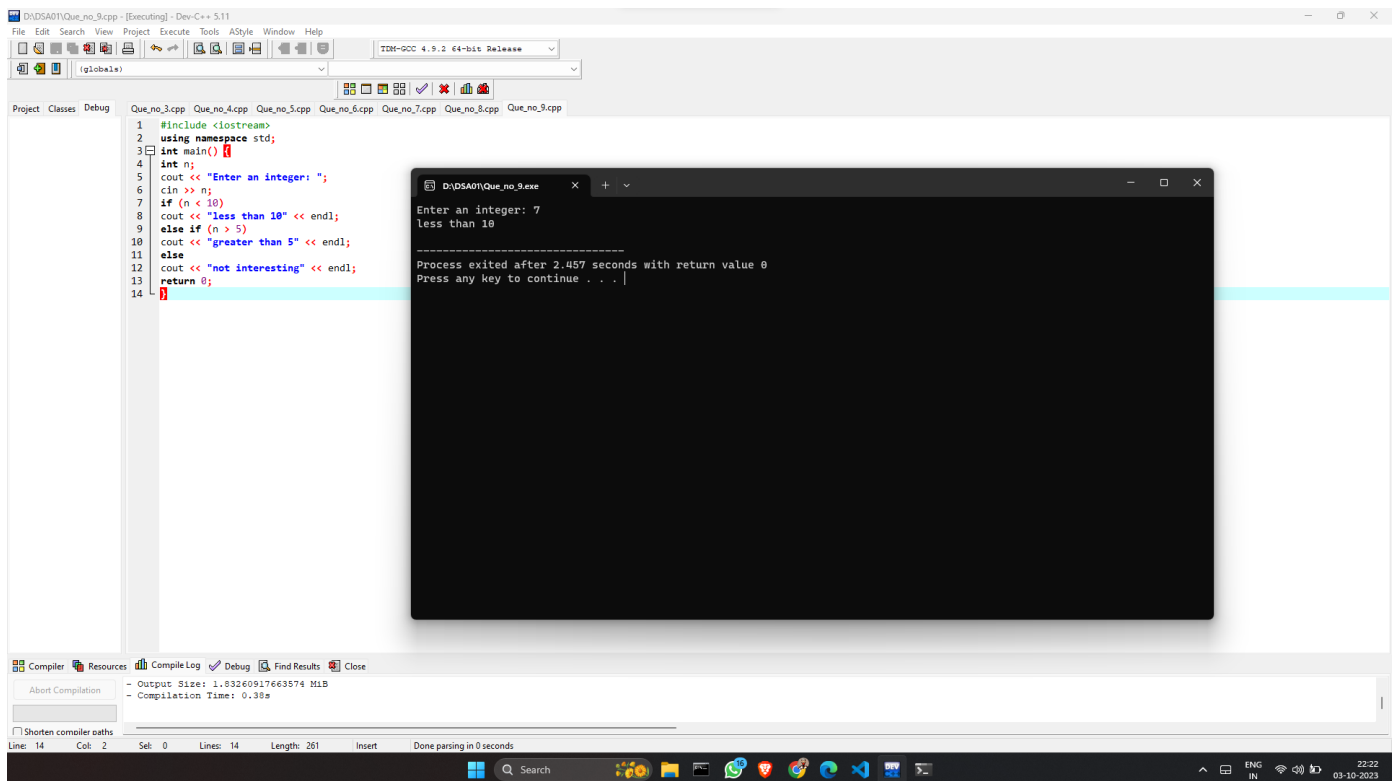c. What will be the output of the fragment above if the interactive user enters the integer value 7 ?

ANS:

10. Rewrite the following code fragment so that it uses a "do...while..." loop to accomplish the same task.

ANS: