

Multiple Choice Questions (with solutions)

<https://csci-1301.github.io/about#authors>

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Contents

1. Why are the instructors sharing most of the material in odt, docx, pdf, html and md?

- To insure compatibility across operating systems (Android, Linux, Windows, MacOS, ...).
- To make it easier to access the resources in multiple ways (print, screen, etc.)
- All of the above.

2. What does "free" software means?

- That the software has no value.
- That the users can run the software for any purpose and study its source code.
- That it is not developed by a company.
- That the software can be downloaded at no cost.

3. In your IDE, the shortcut to compile your program is usually...

- "Build your solution", ctrl + shift + B or Cmd + B
- "Save", ctrl + S or Cmd + S
- "Exit", alt + F4 or Cmd + q
- "Start without debugging", Ctrl + F5 or Cmd + F5

4. To share or backup a project, you need to...

- share the .sln file.
- share the .cs file.
- share the .csproj file.
- zip the folder containing the .sln file and another folder with multiple files and folders in it.

5. If your IDE returns the message

```
Program.cs(21,21): Error CS0117: 'Console' does not contain a definition  
↪ for 'WiteLine' (CS0117) (Solution)
```

This means that...

- That you misspelled the word "WriteLine".
- Your program successfully compiled and is ready to be executed.
- That the "Console" class does not exist.
- Your IDE was not properly installed and you should reboot your computer.

6. Consider the following code:

```
int age, defaultChoice = 0;  
decimal averagePrice;
```


- Constructors and ToString methods both return **strings**.
- Constructors returns a **string**, and a ToString method does not return anything (it simply displays a text).
- It is impossible to know ahead of time, as this depends of the class they are implemented in.

12. What is the name of a constructor method?

- Nothing: an error will prevent from compiling it successfully.
- Whatever the name of the class is.
- It does not have any.
- The name of the instance it creates.
- Constructor

13. What are the three logical connectives in C# (that we studied)?

- And (&&), or (| |) and negation (!).
- Equality (==), greater than (>) and less than (<).
- And (and), or (or) and negation (not).

14. Which of the following will evaluate to true?

- `3 > 1 && 2`
- `(3 > 1) && 1 != 0`
- `!(3 > 1)`
- `3 > 1 || 2`

15. Will the following expression evaluates, and if so, what will it evaluate to?

true == **false** || 2 / 1 > 0 && 3 - 1 != 2 * 0.5 + 0.5

evaluates?

- It will evaluate to a number.
- It will evaluate to **false**.
- It will evaluate to **true**.
- It will not evaluate.
- None of the above.

16. What will be displayed by the following code?

```
int number = 10;
while (number <= 15)
{
    number+=2;
    Console.Write(number + " ");
}
```

- `12 14 16`
- `10 11 12 13 14 15`
- `10 11 12 13 14`
- `10 12 16`
- `10 12`
- `10 12 14`
- `12+14+16`
- `10+11+12+13+14+15`

17. What will be displayed by the following code?

```
int i = 0;
while(i < 10)
{
    Console.WriteLine(i);
}
```

- 0 followed by a new line, forever.
- 0 1 2 3 4 5 6 7 8 9
- 0 1 2 3 4 5 6 7 8 9 with a new line between each number
- Nothing

18. Consider the following code:

```
Console.WriteLine("Enter... something!");
int answer;
bool valid = int.TryParse(Console.ReadLine(), out answer);
Console.WriteLine($"returns: {valid}, value:{answer}");
```

If the user enters "Train", then it will display:

- returns: False, value: 0
- returns: True, value: 0
- returns: True, value: Train
- returns: False, value: Train
- Nothing: the program will crash.

19. Consider the following code:

```
string answer;
Console.WriteLine("Enter something");
answer = Console.ReadLine();
while (answer != "yes" || answer != "Yes"){
    Console.WriteLine("Enter something");
    answer = Console.ReadLine();
}
```

What can the user enters to *exit* this loop:

- There is nothing the user can enter to exit this loop
- Either "Yes" or "yes"
- Anything that is different from "Yes" and "yes"
- Anything

20. Consider the following code:

```
int answer;
Console.WriteLine("Enter something");
answer = int.Parse(Console.ReadLine());
while (answer > 10 && answer < 100){
    Console.WriteLine("Enter something");
    answer = int.Parse(Console.ReadLine());
}
```

What can the user enters to *exit* this loop?

- Any number not between 10 and 100 (both included)
- Any number between 10 and 100 (both included)
- Any number between 10 and 100 (both excluded)

- Any number not between 10 and 100 (both excluded)

21. What is the correct way of creating an array of `int` of size 5 named `myArray`?

- `int[] myArray = new int[5];`
- `int[] myArray = int[5];`
- `int[5] myArray = new int[];`
- `int[4] myArray = new int[];`
- `int myArray = new int[5];`
- `int[] myArray = new int[4];`
- `int[] myArray = new int(5);`
- `int[] myArray = int[4];`

22. Consider the following code:

```
int[] grades = {10, 20, 5, 15};  
Console.WriteLine(grades[2]);
```

What will it display?

- 5
- Nothing
- 20
- 15
- grades
- grades(2)
- 10

23. Consider the following code:

```
char[] grades = {'A', 'B', 'C', 'D', 'F'};  
int i = 0;  
while(i < grades.Length){  
    i++;  
    Console.WriteLine(grades[i]);  
}
```

Something is wrong with it, can you tell what?

- There will be an "Index was outside the bounds of the array." error.
- The array is not properly initialized.
- The loop is infinite
- `grades.Length` is not declared.

24. What will be displayed by the following code?

```
for (int e = -5; e <= 20; e += 5)  
{  
    Console.Write(e + " ");  
}
```

- 5 0 5 10 15 20
- 5 0 5 10 15
- 0 5 10 15
- 5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
- Nothing
- 0 5 10 15 20

25. What will be displayed by the following code?

```
int variable = 0;
for (int e = 1; e <= 5; e += 1)
{
    variable += e;
}
Console.WriteLine(variable);
```

- 15
- 0
- Nothing
- 1 2 3 4 5