

Quiz #1, on 08/25 (Section A) or 08/27 (Section B), will consist of questions taken or inspired from Part I of this homework (up to question 16) and from the labs 1 and 2.

Part I — Questions

1. List five softwares, and three hardware components of a computer.
2. List four programming languages.
3. What is a GUI?
4. What is a CLI?
5. What, if any, is the difference between a compiler and an assembler?
6. Is machine code (or the machine language program) is made of circuits, binary numbers, classes, or compilers?
7. Give a specific characteristic of C# compared to other programming languages.
8. What happens when the source code you're giving to the compiler has a syntax error?
9. Is the C# compiler case-sensitive?
10. Suppose I replace every white space in your source code with two white spaces. Will your program still compile? Why, or why not?
11. What is the limitation, if any, to the number of methods you can have per class? Why is the method called Main special?
12. What is the difference between a "rule" and a "convention" in programming language?
13. What is a namespace?
14. In a C# program, comments can start with `\\` (double backslash) or with `//` (double (forward) slash)? Do they have to end with a `;` (semicolon)?
15. Which of the following, if any, are keywords?
`Welcome1` `public` `91.3` `apples` `int` `"I'm a string"`
16. Which of the following are programmer-defined names (or identifiers)?
`BankAccount` `class` `91.3` `apples` `int` `itemPerCapita` `statement`
17. Why are variables called "variables"?
18. What is string interpolation?
19. What is the difference, if any, between `3` and `"3"`?

20. What is the difference, if any, between the `WriteLine` and `Write` methods?

21. Write a statement that would display the following at the screen:

```
Hi_Mom!↵
How_are_you_doing?
```

22. Assume we have a variable whose name is `myVariable`, type is `string`, and value is `"My message"`. What would be displayed on the screen by the following statement?

```
Console.WriteLine($"Here is my variable: {myVariable}");
```

23. Which of the following are correct identifier names?

`$myHome3` `class` `my%variable` `91.3` `ANewHope` `9_train` `_ThisIsAVariable` `statement`
Is the name `myVariable` the same as `myvariable`? If not, why?

24. Which one(s) of the following, if any, is a correct assignment (assuming that `variable`, `x` and `apples` have been declared as `int` variables)?

```
5 => variable;
x=5;
apples= 23
x <= 23;
variable =1,890;
```

Part II – Problems

Problem 1

There are 4 errors in the following code that will prevent it from compiling. Can you spot them all?

```
// My first attempt.
using System

class Wel
{
    static void Main();
    {
        Console.WriteLine("Welcome \n to the lab!");
    }
}
```

