

Quiz #1, on August 23, 2019, will consist of questions taken or inspired from this homework and from the labs.

Part I – Questions

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

Q. 20 - Write a statement that *initializes* a variable named `myHeightInMeters` to your height in meters. What should be the datatype of `myHeightInMeters`?

Q. 21 - Suppose you replace every `*` in your program with the `!` symbol. Are you completely sure that your program would still compile? Why, or why not?

Q. 22 - Write a statement that would display the following at the screen:

```
Hi_Mom!↵
How_are_you_doing?
```

Q. 23 - Assume we have a variable whose name is `myVariable`, whose type is `string`, and whose value is `"My message"`. What would be displayed at the screen by the following statement?

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

Q. 24 - 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?

Q. 25 - 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!");
    }
}
```

