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For each of the below questions, write a short sentence or two to express (in your own words) your answer. Keep the answers short, but use complete, correct, English sentences.

If it helps to clarify the questions, feel free to mentally prefix all the questions with the phrase "According to the video…"

1. After you’ve watched all the videos, please answer this question:  
   Of all the videos that you watched, if you could pick one video to be re-recorded by the instructor outside of class which would you choose? Why?  
   (Keep in mind the recording outside of class will omit any pauses from the instructor answering student questions, have less hemming and hawing, etc, and generally be more concise)

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| The mic quality for the explanation video about the hybrid and online courses wasn’t very good. I would probably redo it. |

**VIDEO: How To Use My Videos**

1. When viewing the videos in your web browser, where are the video-playback controls located?

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| The playback controls for onedrive are located on the bottom bar in the center. |

1. List out at least three controls that you’ll find on the web page, and what each one does.

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| Play, volume slider, and full screen. Play plays the video, volume changes the volume. Full screen makes the video maximized. **[🤔](https://emojipedia.org/thinking-face/)** |

1. How can you download the .MP4 video file (so that you can watch it in a media player program on your local computer)?

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| Click the download button in the upper left of the screen. |

1. List out at least three features that the VLC Media Player has, and what each one does.

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| Volume control that lets you boost the volume.  Ability to load many unconventional video/media file formats.  Ability to install plugins for increased functionality. |

**VIDEO: What is a project?**

1. How many files might a typical program be made of?

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| Not one file, but a bunch of files. Dozens and dozens and files that make up even a small program. |

1. What can you think of a project as?  
   What is the primary purpose of a project?

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| A project is a bucket/container, stores all different files in the same place |

1. Give some examples of different types of files that you might store inside a project?

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| Image files, source code files, video files, |

1. What is a Visual Studio Solution?

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| A solution is a bucket that contain multiple projects. A bucket of buckets. |

1. Give some examples of different things that a Solution might contain.

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| Projects, help file projects, installer projects. |

1. THIS IS REALLY IMPORTANT:  
   When you’re working with a Project/Solution in Visual Studio, WHICH FILE SHOULD YOU OPEN?

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| Allow you to open individual files, but it doesn’t know what to do with it. Open up the project or the project solution. |

1. What problem will you run into if you open a C# file directly?

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| Visual studio won’t know how to compile or run the individual file. It is entirely separate from the project and the other files that may be required to run the project. |

**VIDEO: How to create a simple console application**

1. Briefly explain two separate ways to start the process of creating a new project.

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| File🡪new project  Visual C# 🡪 console application  Select location to save  Name that is easy to remember |

1. If you’re working at school and you have trouble getting your program to compile and run on the H: (network) drive, where should you try saving the project?

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| --- |
| Because that is where it will save to profile. Put it on the C drive if it has trouble running. |

1. How do you tell Visual Studio to display line numbers?

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| --- |
| Tools🡪options🡪languages🡪text-editors🡪line number option checked |

1. What is the difference between “Start **With** Debugging” and “Start With**out** Debugging”

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| With debugging has stepped running  Without debugging runs the program from start to finish. |

1. How does Visual Studio indicate that your file has a compile-time/syntax error?

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| It displays an error in the error list, or provides a red underline highlighting a code error in the editor. |

**VIDEO: How to download and use a simple console application**

1. What is the key thing to do after you’ve downloaded the .ZIP archive?

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| Unzip the zip archive to the desired save location that you will access the solution from. |

1. If you don’t extract the files from the .ZIP archive and instead you open the C# file from within Visual Studio anyways (while the file is still inside the .ZIP archive) what problem will you run into?

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| Visual studio will be unable to access all the files and the project will not build correctly. |

1. How do you get Visual Studio to display the Solution Explorer?

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| Going to window🡪solution explorer |

**VIDEO: How Basic console I/O ("Everything you need to know for this class, and nothing more”)**

1. What does Console.WriteLine do?

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| It’s the equivalent to the java function System.out.println(); 🡪 It is the console println function equivalent for C# |

1. How does Console.Write differ from Console.WriteLine?

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| Equivalent to java System.out.print();  Prints the contents without limiting to a single line. |

1. How does one produce a line of output in **Java** (and potentially in C#). Assuming that int x = 3; int y = 7; has been declared, list the code here:

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| System.out.println(x + “ , ” + y); |

1. What is the better way to print out variables in C#. Assuming that int x = 3; int y = 7; has been declared, list the code here:

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| Console.WriteLine(“x: {0} y: {1}”, x, y); |

1. When printing out variables, what does {0} refer to? {1}?

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| It refers to the first element in the list (x == {0} , and then the second one {1} == y) |

1. Before getting input from the user what should the program first do?

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| Declare the variables that will store the user input.  Prompt the user to request the desired information. |

1. What is the line of C# code that will get whatever the user has typed?  
   (Make sure that your code stores that input into a variable)

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| --- |
| String szInput;  szInput = Console.Readline(); |

1. What is the line of C# code that will convert the input from text into a integer?

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| Int32.TryParse(szInput, out x); |

1. If the user types in a non-integer value, what will the value of **out x** be?

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| Sets x to be the value 0 if it fails |

1. What is the C# source code can you use to check if the user actually typed in an integer (and display a message either repeating that value, or telling the user that they didn’t type a number in)?

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| If (Int32.TryParse(szInput, out x) == true)  {  Print: The number you type is x  } |
| Else  {  Print: You did not enter a number  } |

1. What is the C# source code that will attempt to convert user input into a real number (into a double value)?

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| Double d;  If (Double.TryParse(szInput, out d) == true)  {  Print: The number you type is x  }  Else  {  Print: You did not enter a number  } |

**VIDEO: Expression Evaluation (Order of operations)**

1. Describe in your own words what the first thing that we do when evaluating an expression:

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| We will annotate everything in the expression so that we know which types the various numbers should be assigned. |

1. We then repeatedly do two steps.  
   What is the step 1? What is step 2?

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| 1. Figure out which operator goes does   Looking up precedence in the reference table or programming guide. PEMDAS   1. Do that operator, keeping track of the type   Substitute values for the variables as needed  Convert between data types as needed  Evaluate (do) the operator |

1. When you see a number like 3.0, what is it’s data type?

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| --- |
| A double in the context of this problem. |

1. When you see a number like 3 (without the .0 / without anything after the decimal point), what is it’s data type?

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| An int |

1. How do we figure out which operator goes next?

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| Looking up its precedence in the reference table, or the more helpful programming guide. Remembering PEMDAS rules. |

1. Once we’ve identified which operator will be evaluated next,   
   what are the three steps in actually doing / evaluating an operator?

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| Substitute values for the variables as needed  Convert between data types as need  Evaluate (“do”) the operator |

1. In the precedence table that was built for you, which operator goes first?

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| The top most operator goes first. Parentheses – left to right associative – if there’s more than 1, do the left most first. |

1. What does ‘left to right associativity’ mean?

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| The expression is evaluated starting from the left of the equation and moving to the right. |

1. How is the assignment operator unusual?

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| It is evaluated from right to left, instead of left to right. |

1. In the expression that gets evaluated in the video, what “operator” goes first?

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| The parentheses “operator is evaluated first |

1. Within that thing that gets evaluated first, what is the first operator that we evaluate?

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| The multiplication operator between 3.0[double] \* x[int] |

1. What is it safe to convert an integer into a double?

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| Because no data is lost, as the integer does not have an information stored in decimal places. |

1. Can you put an assignment operator inside a larger expression?

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| Yes, assignment operators can be put inside a larger expression. |

1. In the video you saw many steps needed to evaluate the expression.   
   Does the computer actually do all these steps, or are these just for teaching purposes?

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| The computer does do the same steps sequentially, just at much faster speeds. |