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# Simple I/O (Solutions)

## Questions

1. The method ReadLine() reads a whole line and interprets its content as an integer (int) type.
	* Yes
	* No
2. A \_\_\_\_\_ can be used in repetition structures (such as loops) to indicate the end of data entry.
	* Property
	* using directive
	* Sentinel value
	* None of the above.
3. In C#, what is the “escape character”? Why is it useful?
* Solution
* The escape character is \. It is useful for telling the compiler that the following character should be interpreted as something other than text, such as a newline in the case of \n.
1. In C#, what is the name of the method used to read input from the user?
* Solution
* Console.ReadLine()

## Problems

1. Write a program that performs the following steps:
	1. Asks user to enter any number between 1 and 100
	2. Multiplies the number user enters by 2
	3. Displays the result of the calculation on the screen
* Here is an example of execution, where the user input is underlined, and hitting “enter” is represented by ↵:
* Hello user!

Please enter a number between 1 and 100: 3͟2͟↵

32 multiplied by 2 is 64!
* Run your program a few times and use different numbers in range 1-100 to verify the program works as intended.
* Solution
* Console.WriteLine("Hello user!");
 Console.Write("Please enter a number between 1 and 100: ");
 double input = double.Parse(Console.ReadLine());
 Console.WriteLine($"{input} multiplied by 2 is {input \* 2}!");
1. Write statements that prompt the user to enter their favorite food and store the input value in a variable.
* Solution
* Console.Write("Enter your favorite food:");
 string uInput = Console.ReadLine();
1. Write statements that prompt the user to enter 3 numbers, and then return their average.
* Solution
* decimal[] nums = new decimal[3];
 Console.WriteLine("Please enter 3 numbers.");

 for (int i = 1; i < 4; i++)
 {
 Console.Write($"\n{i}: ");
 nums[i] = Console.ReadLine();
 }
 Console.WriteLine($"\n"The average of these numbers is: {(nums[0] + nums[1] + nums[2]) / 3});
1. Write statements that prompt the user to enter a positive number, and then output all the odd numbers between 0 and that number.​
* Solution
* Console.Write("Please enter a positive number: ");
 int uInput = int.Parse(Console.ReadLine());

 for (int i = 0; i <= uInput; i++)
 {
 if (i % 2 == 1)
 Console.Write(i + " ");
 }
1. Write a series of statements that:
	1. Declare an int variable named userAge,
	2. Display on the screen a message asking the user to enter his or her age,
	3. Read the value entered by the user and store it in the userAge variable.
* You can add statement(s) performing intermediate steps if you want.
* Solution
* int userAge;
 Console.Write("Please enter your age: ");
 userAge = int.Parse(Console.ReadLine());