

Contents

Simple I/O (Solutions)	1
Questions	1
Problems	1

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`.

4. 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:
 - (a) Asks user to enter any number between 1 and 100
 - (b) Multiplies the number user enters by 2
 - (c) 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: 32 ↵

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}!");
```

2. 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();
```

3. 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($"{i}: ");
    nums[i] = Console.ReadLine();
}
Console.WriteLine($"{i}\n" The average of these
↵ numbers is: {(nums[0] + nums[1] + nums[2]) / 3});
```

4. 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 + " ");
}

```

5. Write a series of statements that:

- (a) Declare an `int` variable named `userAge`,
- (b) Display on the screen a message asking the user to enter his or her age,
- (c) 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());

```