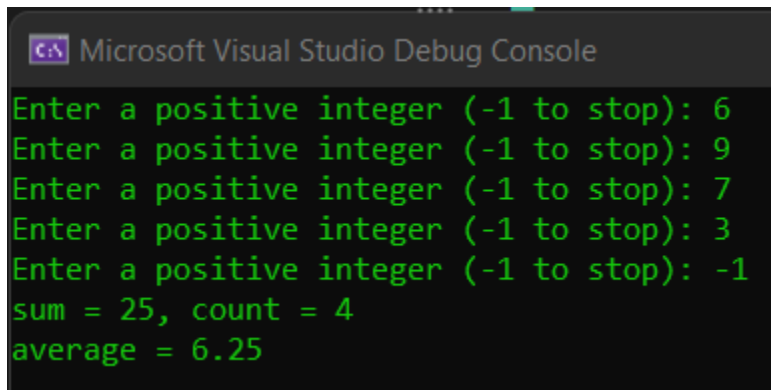


Question #1

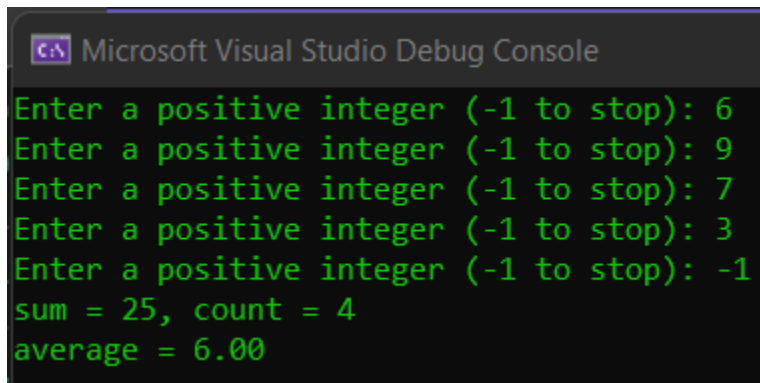
Remember: When asked “What is the output”, be sure to include **everything** in the Output Window (you need to copy the entire contents of the Output Window ... includes prompt strings, input and output).

b) What is the output?



```
Microsoft Visual Studio Debug Console
Enter a positive integer (-1 to stop): 6
Enter a positive integer (-1 to stop): 9
Enter a positive integer (-1 to stop): 7
Enter a positive integer (-1 to stop): 3
Enter a positive integer (-1 to stop): -1
sum = 25, count = 4
average = 6.25
```

c) What is the output?



```
Microsoft Visual Studio Debug Console
Enter a positive integer (-1 to stop): 6
Enter a positive integer (-1 to stop): 9
Enter a positive integer (-1 to stop): 7
Enter a positive integer (-1 to stop): 3
Enter a positive integer (-1 to stop): -1
sum = 25, count = 4
average = 6.00
```

How is it different from Part (b), and why?

The output for part c is rounded because the double casting of the count variable in the calculation was removed, so it changed from type double to type int result in a change of value

d) What is the output?

```
Microsoft Visual Studio Debug Console

Enter a positive integer (-1 to stop): 6
Enter a positive integer (-1 to stop): 9
Enter a positive integer (-1 to stop): 7
Enter a positive integer (-1 to stop): 3
Enter a positive integer (-1 to stop): -1
sum = 25, count = 4
average = 6.25
```

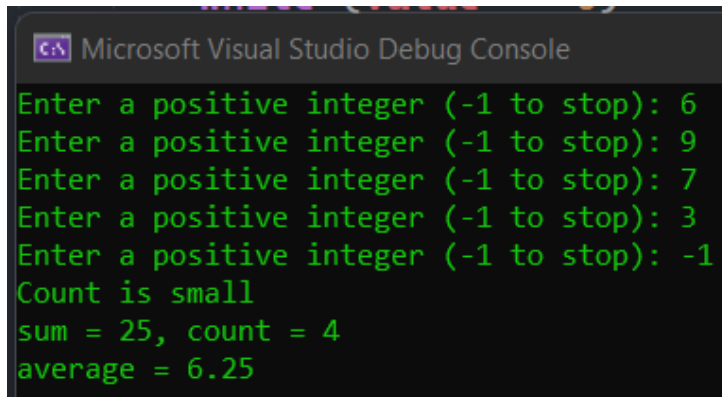
How is it different from Part (c), and why?

The output for part d is going to be the same as part b because we are multiplying the count variable by a double value of 1.0, resulting in a change of type int to type double value

e) Show just the If/Else statement.

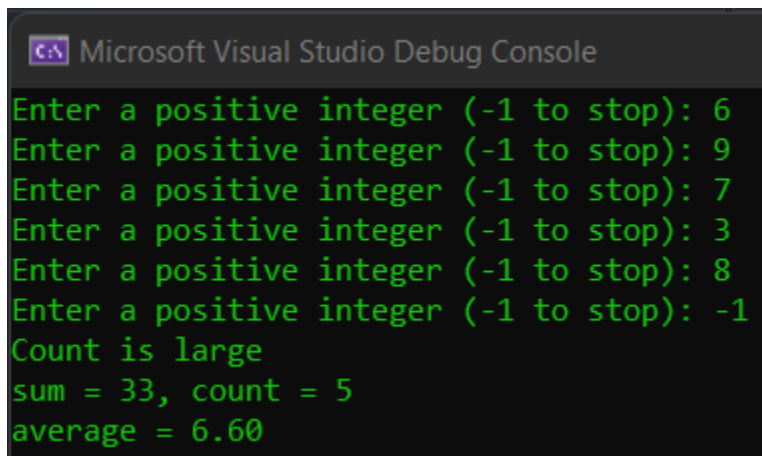
```
32 // Display small or large based on count
33 if (count < 5)
34     Console.WriteLine("Count is small");
35 else if (count >= 5)
36     Console.WriteLine("Count is large");
```

What is the output?



```
Microsoft Visual Studio Debug Console
Enter a positive integer (-1 to stop): 6
Enter a positive integer (-1 to stop): 9
Enter a positive integer (-1 to stop): 7
Enter a positive integer (-1 to stop): 3
Enter a positive integer (-1 to stop): -1
Count is small
sum = 25, count = 4
average = 6.25
```

f) What is the output?



```
Microsoft Visual Studio Debug Console
Enter a positive integer (-1 to stop): 6
Enter a positive integer (-1 to stop): 9
Enter a positive integer (-1 to stop): 7
Enter a positive integer (-1 to stop): 3
Enter a positive integer (-1 to stop): 8
Enter a positive integer (-1 to stop): -1
Count is large
sum = 33, count = 5
average = 6.60
```

g) Comment on what you saw.

As the program was running, and as I was inputting the integers, I saw the value variable change when a new integer was inputted, the sum variable increase, and the count variable increase as well, all of which was shown in my debugger

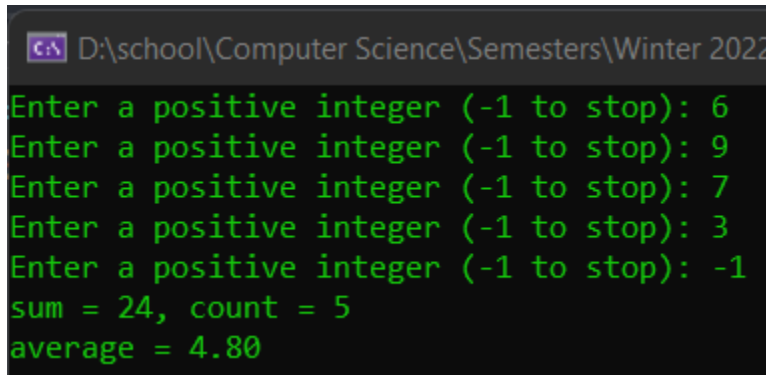
h) Comment on what you saw.

After entering -1 I was able to see all the values of the variables, and when continuing the program I was prompted to enter another integer, and when doing so my output was displayed with a sum of 0, count of 1, and average of 0.0

i) How does it differ from Part (g) and why?

I differs from part b because when I step over to the next event it is the semicolon instead of the sum += value computation

j) What is the output, and if it's different from Part (d), why?

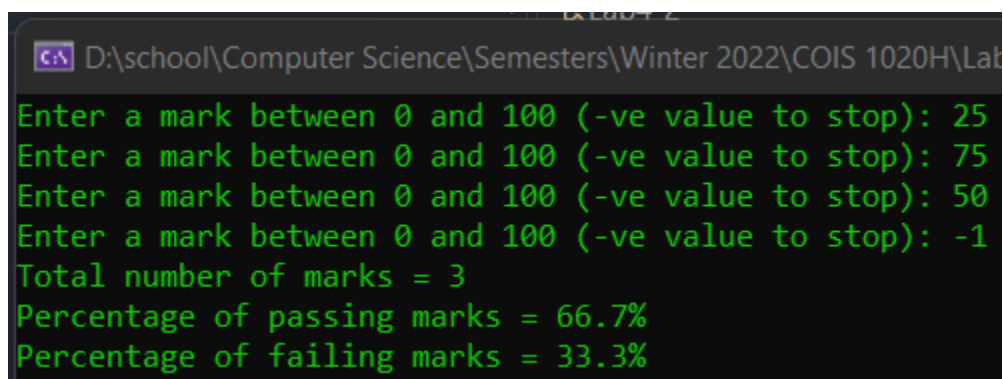


```
D:\school\Computer Science\Semesters\Winter 2022
Enter a positive integer (-1 to stop): 6
Enter a positive integer (-1 to stop): 9
Enter a positive integer (-1 to stop): 7
Enter a positive integer (-1 to stop): 3
Enter a positive integer (-1 to stop): -1
sum = 24, count = 5
average = 4.80
```

When the user inputs -1 to stop the input, the -1 is added to the value of our sum in the loop

Question #2

Screenshot for Test a



```
D:\school\Computer Science\Semesters\Winter 2022\COIS 1020H\Lab
Enter a mark between 0 and 100 (-ve value to stop): 25
Enter a mark between 0 and 100 (-ve value to stop): 75
Enter a mark between 0 and 100 (-ve value to stop): 50
Enter a mark between 0 and 100 (-ve value to stop): -1
Total number of marks = 3
Percentage of passing marks = 66.7%
Percentage of failing marks = 33.3%
```

Screenshot for Test b

```
C:\> D:\school\Computer Science\Semesters\Winter 2022\COIS 1020H\Lab
Enter a mark between 0 and 100 (-ve value to stop): 60
Enter a mark between 0 and 100 (-ve value to stop): 70
Enter a mark between 0 and 100 (-ve value to stop): 80
Enter a mark between 0 and 100 (-ve value to stop): -1
Total number of marks = 3
Percentage of passing marks = 100.0%
Percentage of failing marks = 0.0%
```

Screenshot for Test c