

CSE 121: Section 4 - For Loops

1. Loop Tracing

For the loop below, trace through the code line by line. At the end of the loop (indicated by the comment “the end”), fill in one row of the table with the console output thus far, the value of `i`, and the value of `mystery`. When the loop is finished, record how many total iterations occurred. Note: the table has more rows than you may need.

```
String myFavoriteClass = "CHEM259"; // length is 7 characters!
int mystery = 3;

for (int i = 0; i < myFavoriteClass.length(); i += 2) {
    System.out.print(myFavoriteClass.charAt(i));
    mystery += i;
    // the end
}
```

Iteration #	Value of <code>i</code>	Value of <code>mystery</code>	What has been printed thus far
1	0	3	C
2	2	5	CE
3	4	9	CE2
4	6	15	CE29
5			
6			

2. Loop Writing

Each output below was printed by a for-loop; however, some of the loops' code got erased! For each output, complete the code to achieve the desired output.

Output #1:

```
Hello 1!  
Hello 2!  
Hello 3!  
Hello 4!  
Hello 5!
```

Code to create output #1:

```
for (int i = 1; i <= 5; i++) {  
    System.out.println("Hello " + i + "!");  
}
```

Output #2:

```
5 4 3 2 1
```

Code to create output #2:

```
for (int i = 5; i > 0; i -= 1) {  
    System.out.print(i + " ");  
}
```