

Section 4: Strings, For Loops

To earn section credit, turn in a handwritten, paper copy of your pre-section work at the beginning of section. You may complete this on any piece of paper (printing the worksheet is not required), but virtual submissions are not accepted.

Part 1: Loop Tracing

What is the output of this loop?

```
for (int i = 0; i <= 5; i++) {  
    System.out.print("hi! ");  
}
```

What does this for loop print to the console? Fill in the output below.

```
public class PreSection {  
    public static void main(String[] args) {  
        for (int i = 0; i < 6; i += 2) {  
            System.out.println("Current value of i = " + i);  
        }  
        System.out.println();  
        System.out.println("Loop done !");  
    }  
}
```

Output:

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Part 2: Loop Programming

Complete the program below by filling in the missing components marked by _____.

This program uses the following variables:

- `String text`: the original text
- `String result`: a new string that will be built character by character

The goal of this program is to create a new string that contains **every other character** from `text`, starting at index 0.

Example

```
if: text = "abcdefg"
```

The program should output: `aceg`

This is because the characters at indices 0, 2, 4, and 6 are included, while all other characters are skipped.

Fill in the missing components marked by _____ to complete the program.

```
public class SkipChars {
    public static void main(String[] args) {
        String text = "abcdefg";
        String result = "";

        for (int i = _____; i < _____; i += _____) {
            result += _____;
        }

        System.out.println(result);
    }
}
```

Note: If you are working on a blank sheet of paper, feel free to just copy the for loop and fill in the blanks. You do not need to copy the rest of the program.