

LOOPS SOLUTIONS

Solution 1: Hello is printed 2 times.

Solution 2:

```
import java.util.Scanner;
public class Solution {
  public static void main(String[] args) {
```



Solution 3:

```
import java.util.Scanner;
public class Solution {
   public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int num; // To hold number
        int fact = 1; // To hold factorial

        System.out.print("Enter any positive integer: ");
        num = sc.nextInt();

        for(int i=1; i<=num; i++) {
            fact *= i;
        }

        System.out.println("Factorial: "+ fact);
    }
}</pre>
```

Solution 4:

```
import java.util.*;
class MultiplicationTable {
  public static void printMultiplicationTable(int number) {
     Scanner sc = new Scanner(System.in);
     System.out.print("Enter number:");
     int n = sc.nextInt();
     for(int i=1; i<=10; i++) {
          System.out.println(n + " * " + i + " = " + n*i);
     }
  }
  public static void main(String s[]) {
     printMultiplicationTable(5);
  }
}</pre>
```

Solution 5:

Scope of variable is referred to the part of the program where the variable can be used.



In this program variable i is declared in the for loop. So scope of variable i is limited to the for loop only that is between $\{$ and $\}$ of the for loop. There is a display statement after the for loop where variable i is used which means i is used out of scope. This leads to compilation errors.

The program given will not run and give an error instead. To correct the program, the variable i needs to be declared outside the for loop.

