

Java
for loop worksheet #1

Name –
Period -

Trace the following loops showing the values stored in the loop variable *i* but circle the final value. Show **the output** as well but notice that the exercises use the `print` method rather than `println` so the output will be on one horizontal line. Write "error" or "infinite loop" where appropriate. Exercise #1 is completed as an example. Note that these code segments do not necessarily use good style since they don't have curly braces surrounding their body statements. The `++` operator adds one and the `--` operator subtracts one. Be wary of integer division in Java which occurs when an integer such as 3 is divided by 2 the result is truncated to 1 instead of 1.5.

1.

```
for (int i = 1; i <= 5; i++)  
    System.out.print(i + " ");
```

i output:1 2 3 4 5
~~1~~
~~2~~
~~3~~
2.

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

i output:
~~4~~
~~5~~
⑥
3.

```
for (int i = 0; i < 5; i++)  
    System.out.print((i + 1) + " ");
```

i output:
4.

```
for (int i = 0; i <= 8; i += 2)  
    System.out.print(i + " ");
```

i output:
5.

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

i output:
6.

```
for (int i = 2; i < 6; i++)  
    System.out.print(i / 2 + " ");
```

i output:
7.

```
for (int i = 0; i < 6; i = (i + 2) / 2)  
    System.out.print(i + " ");
```

i output:
8.

```
for (int i = 3; i > 5; i++)  
    System.out.print(i * 2 + " ");
```

i output:
9.

```
for (int i = 0; i < 7; i--)  
    System.out.print(i + " ");
```

i output:
10.

```
for (int i = 2; i < 9; i++)  
    if (i % 2 == 0) System.out.print(i + " ");
```

i output:
11.

```
for (int i = 1; i <= 2; i++) System.out.print(i + " ");
```

i output:
12.

```
for (int i = 0; i <= 2; i++); System.out.print(i + " ");
```

i output: