**Name:**

# for Loops

1. Determine the exact output for the following code segment:

**for (int i = 1; i <= 5; i++) {**

**System.out.println("Outer loop iteration " + i);**

**for (int j = 1; j <=2; j++) {**

**System.out.println("i = " + i + "; j = " + j);**

**}**

**}**

Outer loop iteration 1

i = 1; j = 1

i = 1; j = 2

Outer loop iteration 2

i = 2; j = 1

i = 2; j = 2

Outer loop iteration 3

i = 3; j = 1

i = 3; j = 2

Outer loop iteration 4

i = 4; j = 1

i = 4; j = 2

Outer loop iteration 5

i = 5; j = 1

i = 5; j = 2

2. Determine the exact output for the following code segment:

**int i = 1;**

**while (i <= 5) {**

**System.out.println("Outer loop iteration " + i);**

**for (int j = 1; j <= 2; j++) {**

**System.out.println("i = " + i + "; j = " + j);**

**}**

**i++;**

**}**

Outer loop iteration 1

i = 1; j = 1

i = 1; j = 2

Outer loop iteration 2

i = 2; j = 1

i = 2; j = 2

Outer loop iteration 3

i = 3; j = 1

i = 3; j = 2

Outer loop iteration 4

i = 4; j = 1

i = 4; j = 2

Outer loop iteration 5

i = 5; j = 1

i = 5; j = 2

3. Determine the exact output for the following code segment:

**int rows = 5;**

**for(int i = 1; i <= rows; ++i)**

**{**

**for(int j = 1; j <= i; ++j)**

**{**

**System.out.print(j + " ");**

**}**

**System.out.println("");**

**}**

**1**

**1 2**

**1 2 3**

**1 2 3 4**

**1 2 3 4 5**