Did you know you can also *nest* loops inside of each other? Paste this nested loop in your browser and take a look at what it prints out:

**for** (**var** x = 0; x < 5; x = x + 1) {

**for** (**var** y = 0; y < 3; y = y + 1) {

console.log(x + "," + y);

}

}

***Prints****:  
0, 0  
0, 1  
0, 2  
1, 0  
1, 1  
1, 2  
2, 0  
2, 1  
2, 2  
3, 0  
3, 1  
3, 2  
4, 0  
4, 1  
4, 2*

Notice the order that the output is being displayed.

For each value of x in the outer loop, the inner for loop executes completely. The outer loop starts with x = 0, and then the inner loop completes its cycle with all values of y:

x = 0 and y = 0, 1, 2 *// corresponds to (0, 0), (0, 1), and (0, 2)*

Once the inner loop is done iterating over y, then the outer loop continues to the next value, x = 1, and the whole process begins again.

x = 0 and y = 0, 1, 2 *// (0, 0) (0, 1) and (0, 2)*

x = 1 and y = 0, 1, 2 *// (1, 0) (1, 1) and (1, 2)*

x = 2 and y = 0, 1, 2 *// (2, 0) (2, 1) and (2, 2)*

etc.

***NOTE:****Nested loops can be tricky at first. We will revisit them again in****Lesson 6: Arrays****.*

**QUIZ QUESTION**

What will this loop print out?

**for** (**var** i = 0; i <= 6; i = i + 2) {

console.log(i);

}

* 

1 2 3 4 5 6

* 

0 1 2 3 4 5 6

* 

1 3 5

* 

1 3 5 7

* 

0 2 4

* 0 2 4 6