

## Lesson 9: Finding Duplicates

### Video Notes: Nested Loops

#### Three Things You Learned

- 1 Placing each individual brick is an inner loop
- 2 Placing of entire row of bricks is outer loop
- 3 Inner loop is inside outer loop

#### Two Interesting Ideas

- 1 Can use for loops
- 2 Good for repetitive actions

#### One Question or Wonder

Can we nest loops three times?

### Nested Loops

Term	Definition	Example / Picture / Code
nested loop	a loop inside of another loop	

Trace the code segment.

```
for (int outer = 1; outer >= 0; outer--) {
    for (int inner = 0; inner <= 1; inner++) {
        System.out.println(outer + " " + inner);
    }
}
```

outer	outer >= 0	inner	inner <= 1	output
1	T	0	T	10
		1	T	11
		2	F	
0	T	0	T	00
		1	T	01
		2	F	
-1	F			

## Reflection

**Question of the Day:** How can I check if a 1D array contains duplicate elements?

*Use nested for loops*

How can software engineers use data to support individuals or a community?

*Answers may vary*