

# Announcements

- **If I still have your quiz, please come get it now**
- **Please bring laptops on Friday**
- **Project #3 due Thursday night**

# Arrays

## **Caution:**

Arrays are very different in other languages!  
In particular, Java arrays are very different from  
JavaScript arrays.

# Arrays

**Collection**: **One** variable represents an object that can hold **more than one** piece of data

An **array** is a simple kind of collection.

```
var a = ["Joe", 52, "Tom", 99.77];
```

"Joe"	52	"Tom"	99.77
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# Arrays

```
var a = ["Joe", 52, "Tom", 99.77];
```

"Joe"	52	"Tom"	99.77
<b>a[0]</b>	<b>a[1]</b>	<b>a[2]</b>	<b>a[3]</b>

**a[0]** now represents the string "Joe"

**a[1]** now represents the number 52

Etc.

**a.length** represents the "length" of the array (in this case, 4)

**Example: [Arrays1.html](#)**

# Arrays and For Loops

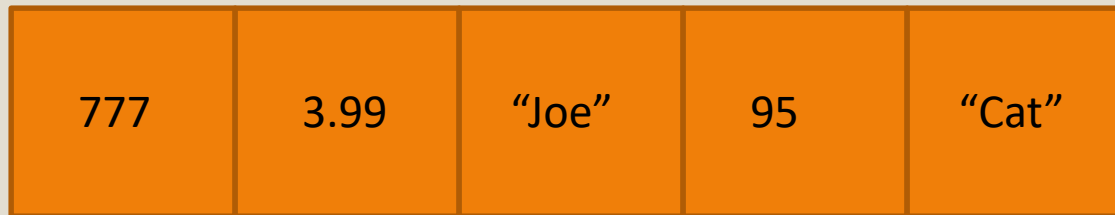
Common “idiom” for processing all elements in an array, a:

```
for (var i = 0; i < a.length; i = i + 1) {  
    ...a[i]...  
}
```

Examples: [Array2.html](#)  
[Array3.html](#)

# Making an array bigger

```
var a = [3.99, "Joe", 95];
```



**unshift** -- adds element to front

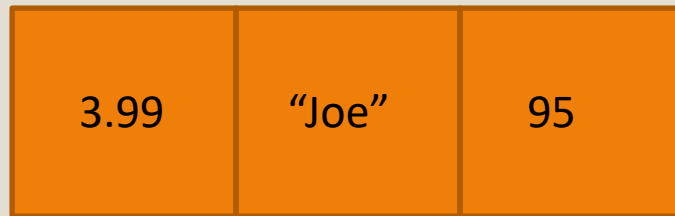
**push** -- adds element to back

```
a.unshift(777);
```

```
a.push("Cat");
```

# Making an array smaller

```
var a = [3.99, "Joe", 95];
```



**shift** -- removes element from front

```
var y = a.shift();
```

**pop** -- removes element from back

```
var x = a.pop();
```

Example: [Arrays4.html](#)