

Announcements

- Do your term paper!
- Project #3 is due tonight
- Project #4 has been posted
- Friday will be practice, but you don't need a computer

Review

- **Let's go over exercise from last class (Whack-A-Mole)**

Manipulating Arrays

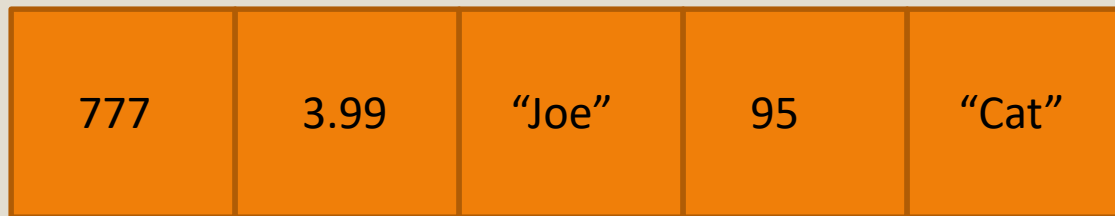
Caution:

Arrays are very different in other languages!

In particular, Java arrays are very different from JavaScript arrays.

Making an array bigger

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



unshift -- adds element to front

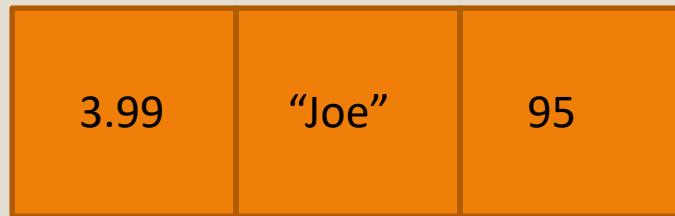
push -- adds element to back

```
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](#)

Using Splice to Remove from Middle

```
var a = [777, 3.99, "Joe", 95, "Cat"];
```



To remove 2 items from position #1...

```
a.splice(1, 2);
```

Using Splice to Insert Into Middle

```
var a = [777, 3.99, "Joe", 95, "Cat"];
```

| | | | | |
|-----|------|-------|----|-------|
| 777 | 3.99 | "Joe" | 95 | "Cat" |
|-----|------|-------|----|-------|

| | | | | | | |
|-----|------|--------|------|-------|----|-------|
| 777 | 3.99 | "Fish" | 22.7 | "Joe" | 95 | "Cat" |
|-----|------|--------|------|-------|----|-------|

To insert some items at position #2...

```
a.splice(2, 0, "Fish", 22.7);
```

[Example: Splice.html](#)