


Do Now

1. Go to bit.ly/doNow1-28-19 and explore the app.
2. After a few minutes of trying different inputs, look at the code
3. Which line of code is most important in getting the app to do what it does?



JavaScript: For Loops

Definitions

for-loop:

A control structure that allows us to repeat a block of code for a fixed number of times using a counter.


If I want something to run exactly 7 times, I would use a for-loop

If I want to look at all of the elements in an array, I would use a for-loop where i will represent the index

Syntax

initial value
condition **increment**

```
for (var i = 0; i < 15; i++) {  
  console.log("This");  
  console.log("for-loop");  
  console.log("will run 15 times");  
}
```



Code block
to be
repeated

Example 1

For-loops are helpful for math operations

Instructions: Write a for loop that finds the sum of all numbers 1 - 100

So, $1 + 2 + 3 + 4 + 5 \dots$

```
var sum = 0;
for(var i = 1; i <= 100; i++){
    sum = sum + i;
}
console.log(sum);
```

Example 2

For loops are used to work with arrays of data

Find all of the words in an array that start with the letter "B" and log them to the console:

```
var words = ["Apple", "Banana", "Basketball",  
"Zebra"];  
for(var i = 0; i < words.length; i++) {  
    if(words[i].charAt(0) == "B"){  
        console.log(words[i]);  
    }  
}
```

Changing Increment

How many times will this for loop run?

```
for (var i = 0; i < 12; i += 5) {  
    //do stuff  
}
```

What is the value of `i` after the loop stops?

Activity

Go to bit.ly/forLoopPractice

Complete the 7 tasks

If you finish them all, have me check them. Then you may work on past projects you plan to resubmit or work on something from another class.