# **Loops and Iterations**

**Exercise**

**In the codepen above, make the loop *start* at 30, and count down to 0.**

let counter = 30;

while (counter >= 0){

document.write(counter + " ");

counter -= 1;

}

### **Exercise**

**Using a for loop, display a countdown from 10 to 0. You will need to write i-- in your for loop.**

for (let i = 10; i >= 0; i--){

console.log(i);

}

**1. Print the numbers 1 through 50.**

for(let i=1; i<=50; i++){

document.write(i + " ");

}

**2. If the number is divisible by 7, you must skip the next number.**

for(let i=1; i<=50; i++){

if(i%7 === 0){

document.write((i+1) + " ");

}

}

**3. If the number is divisible by 10 or 15, you must print “Donkey!”.**

for(let i=1; i<=50; i++){

if(i%10 === 0 || i%15=== 0){

document.write("Donkey! ");

}

}

**4. If the number is not divisible by 2 and the previous number is divisible by 10, you must print “Monkey!”.**

for(let i=1; i<=50; i++){

if(i%2 != 0 && (i-1)%10=== 0){

document.write("Monkey! ");

}

}

1. **Array**

**Exercise**

Let’s perform a few operations on the array above.

const animalArray = ["dog", "cat", "fish", "lizard", "whale", "cheetah"];

1. Add two of your favorite animals to the *end* of the array.

animalArray.push("sheep", "hen");

document.write(animalArray);

1. Remove the first two elements of the array.

animalArray.splice(0, 2);

document.write(animalArray);

1. Replace the last element in the array with the word “last”.

animalArray[animalArray.length-1] = "Last"

document.write(animalArray);

## **Exercise: Common Array Operations**

### **Sum the Numbers**

let sum = 0;

const numbers = [2, 3, 6, 1, 7, 10];

for(let i = 0; i < numbers.length; i++){

sum += numbers[i];

}

console.log(sum); //29

### **Average the Numbers**

let sum = 0;

const numbers = [1, 7, 4, 11, 16, 10];

for(let i = 0; i < numbers.length; i++){

sum += numbers[i];

}

let average = sum / (numbers.length);

console.log(average); // 8.1666

### **Find the Largest**

const numbers = [10, 16, 99, 0, 52, 41, 7];

let currentLargest = numbers[0];

for (let i=1; i < numbers.length; i++){

if(numbers[i] > currentLargest){

currentLargest = numbers[i];

}

}

console.log(currentLargest); // 99