Basic Foundation I

(1.) **Get 1 to 255** - Write a function that returns an array with all the numbers from 1 to 255.

```
var arr = [ ];
for(var i = 1; i<=255; i++){
        arr.push(i);
}
console.log(arr);
```

(2.) **Get even 1000** - Write a function that would get the sum of all the even numbers from 1 to 1000. You may use a modulus operator for this exercise.

```
var sum = 0;
for(var i = 1; i<=1000; i++){
        if(i % 2 ===0){
                sum += i;
        }
}
console.log(sum);
```

(3.) **Sum odd 5000** - Write a function that returns the sum of all the odd numbers from 1 to 5000. (e.g. 1+3+5+...+4997+4999).

```
var sum = 0;
for(var i = 1; i<=5000; i++){
        if(i % 2 ===1){
                sum += i;
        }
}
return sum;
```

(4.) **Iterate an array** - Write a function that returns the sum of all the values within an array. (e.g. [1,2,5] returns 8. [-5,2,5,12] returns 14).

```
function iterateArr(){
        var sum = 0;
        for(var i = 0; i<arr.length; i++){
                sum +=arr[ i ];
        }
        return sum;
}
```

(5.) **Find max** - Given an array with multiple values, write a function that returns the maximum number in the array. (e.g. for [-3,3,5,7] max is 7)

```
function returnMax(){
var max=arr[0];
        for(var i=1; i<arr.length; i++){
                if(max<arr[ i ]){
                        max = arr[ i ];
                }
        }
        return max;
}
```

(6.) **Find average** - Given an array with multiple values, write a function that returns the average of the values in the array. (e.g. for [1,3,5,7,20] average is 7.2)

```
function getAverage(){
var avg=0
for(var i=0; i<arr.length; i++){
        avg += arr[i];
        }
}
return avg/arr.length;
```

(7.) **Array odd** - Write a function that would return an array of all the odd numbers between 1 to 50. (ex. [1,3,5, ... , 47,49]). Hint: Use 'push' method.

```
function arrOdd(){
var arr=[ ];
        for(var i=0; i<=50; i++){
                if(i % 2 ===1){
                        arr.push(i);
                }
        }
return arr;
}
```

(8.) **Greater than Y** - Given value of Y, write a function that takes an array and returns the number of values that are greater than Y. For example if arr = [1, 3, 5, 7] and Y = 3, your function will return 2. (There are two values in the array greater than 3, which are 5, 7).

```
function greater(arr, Y){
var count=0;
        for(var i = 0; i<arr.length; i++){
                if(arr[ i ]>Y){
                        count++;
                }
                return count;
        }
}
```

(9.) **Squares** - Given an array with multiple values, write a function that replaces each value in the array with the value squared by itself. (e.g. [1,5,10,-2] will become [1,25,100,4])

```
function squareRoot(){
        for(var i = 0; i<arr.length; i++){
        arr[ i ]= arr[ i ]*arr[ i ];
        }
        return arr;
}
```

(11.) **Negatives** - Given an array with multiple values, write a function that replaces any negative numbers within the array with the value of 0. When the program is done the array should contain no negative values. (e.g. [1,5,10,-2] will become [1,5,10,0])

```
function negative(){
for(var i=0; i<arr.length; i++){
        if(arr[i]<0){
                arr[i]=0;
        }
    }
return arr;
}
```

(12.) **Max/Min/Avg** - Given an array with multiple values, write a function that returns a new array that only contains the maximum, minimum, and average values of the original array. (e.g. [1,5,10,-2] will return [10,-2,3.5])

```
function minMaxAvg(){
var arr = [1,5,10,-2];
var min = arr[0];
var max = arr[0];
var sum = arr[0];
for(var i = 1; i<arr.length; i++){
        if(min>arr[i]){
                min=arr[i];
        }
        if(max<arr[i]){
                max = arr[i];
        }
        sum += arr[i];
        }
var avg= sum/arr.length;
var newArr = [max, min, avg];
return newArr;
}
```

(13.) **Number to String** - Write a function that takes an array of numbers and replaces any negative values within the array with the string 'Dojo'. For example if array = [-1,-3,2], your function will return ['Dojo','Dojo',2].

```
function numToString(){
        for(var i=0; i<arr.length; i++){
                if(arr[ i ]<0){
                arr[ i ]="Dojo"
                }
        }
return arr;
}
```