1. Print odd numbers in an array

Anonymous function:

let oddNumbers = function(array){

    let odd = [];

    for(let i in array)

    {

        if(array[i]%2 ==1)

        {

            odd.push(array[i]);

        }

    }

    return odd;

}

console.log(oddNumbers([2, 4, 9, 7, 17, 26]));

IIFE function:

(function (arr) {

    let odd = [];

    for (let i in arr) {

      if (arr[i] % 2 !== 0) {

        odd.push(arr[i]);

      }

    }

    console.log(odd);

  })([2, 4, 9, 7, 17, 26]);

**Output :**

[ 9, 7, 17 ]

1. Convert all the strings to title caps in a string array

Anonymous function:

let titlecase = function(str){

    return str

        .split(' ')

        .map((word) => word[0].toUpperCase() + word.slice(1).toLowerCase())

        .join(' ');

}

console.log(titlecase("guvi geeks"));

IIFE function:

(function(str) {

    let result = str.split(' ')

    .map((word) => word[0].toUpperCase() + word.slice(1).toLowerCase()).join(' ');

    console.log(result);

})("guvi geeks");

**Output :**

Guvi Geeks

3.**Sum of all numbers in an array**

**Anonymous function:**

let array = [12,15,16,3,6,2];

let sum=0;

let getsum = function(array){

    for(let values in array)

    {

        sum+=array[values];

    }

    return sum;

}

console.log(getsum(array));

**Output:**

**54**

**IIFE function:**

(function(array){

    let sum=0;

    for(let values in array)

    {

        sum+=array[values];

    }

    console.log(sum);

})([12,15,16,3,6,2]);

**Output:**

**54**

4.Return all the prime numbers in an array

Anonymous function:

let prime = function (arr) {

    return arr.filter((n) => {

      for (let i = 2; i < n; i++) {

        if (n % i === 0) return false;

      }

      return n > 1;

    });

  };

  console.log(prime([7, 16, 9, 3]));

IIFE function:

let prime = (function(arr){

    return arr.filter((n) => {

        for (let i = 2; i < n; i++) {

          if (n % i === 0) return false;

        }

        return n > 1;

      })

  })([7, 16, 9, 3]);

console.log(prime);

**Output:**

[ 7, 3 ]

Return all the palindromes in an array

Anonymous function:

const arr = ["carecar", "1344", "12321", "did", "cannot"];

const isPalindrome = function (word) {

  let revstr = word.split("").reverse().join("");

  if (word == revstr) {

    return true;

  } else return false;

};

const findPalindrome = function (arr) {

  return arr.filter((word) => isPalindrome(word));

};

console.log(findPalindrome(arr));

IIFE function:

const arr = ["carecar", "1344", "12321", "did", "cannot"];

const isPalindrome = function (word) {

  let revstr = word.split("").reverse().join("");

  if (word == revstr) {

    return true;

  } else return false;

};

(function (arr) {

  return console.log(arr.filter((word) => isPalindrome(word)));

})(arr);

**Output:**

[ '12321', 'did' ]

Return median of two sorted arrays of same size

Anonymous function:

let median = function(array){

    let a= array.length/2;

    let avg = (array[a-1]+array[a])/2;

    return avg;

}

let array1 = [1, 12, 15, 26, 38];

let array2 = [2, 13, 17, 30, 45];

let newarr = array1.concat(array2);

newarr.sort(function(a, b) {

    return a - b;

  });

let n1 = array1.length;

let n2 = array2.length;

if (n1 == n2)

    console.log("Median is "+ median(newarr));

else

   console.log("Doesn't work for arrays of unequal size");

IIFE function:

let array1 = [1, 12, 15, 26, 38];

let array2 = [2, 13, 17, 30, 45];

let newarr = array1.concat(array2);

newarr.sort(function(a, b) {

    return a - b;

  });

let n1 = array1.length;

let n2 = array2.length;

if (n1 == n2){

    (function(){

        let a= newarr.length/2;

        let avg = (newarr[a-1]+newarr[a])/2;

        console.log("Median is "+ avg);

    })(newarr);

}

else

   console.log("Doesn't work for arrays of unequal size");

**Output:**

Median is 16

**7.Remove duplicates from an array**

**Anonymous function:**

let uniqueChars = function (array) {

  let unique = array.filter((c, index) => {

    return array.indexOf(c) === index;

  });

  return unique;

};

console.log(uniqueChars(["A", "B", "A", "C", "B"]));

**output:**

**[ 'A', 'B', 'C' ]**

**IIFE function:**

(function (array) {

  let unique = array.filter((c, index) => {

    return array.indexOf(c) === index;

  });

  return console.log(unique);

})(["A", "B", "A", "C", "B"]);

**output:**

**[ 'A', 'B', 'C' ]**

**8.Rotate an array by k times**

**Anonymous function:**

let nums = [1, 2, 3, 4, 5];

let k = 3;

const rotateArray1 = function (nums, k) {

  for (let i = 0; i < k; i++) {

    nums.unshift(nums.pop());

  }

  return nums;

};

console.log(rotateArray1(nums, k));

**Output:**

**[ 3, 4, 5, 1, 2 ]**

**IIFE function:**

(function (nums, k) {

  for (let i = 0; i < k; i++) {

    nums.unshift(nums.pop());

  }

  return console.log(nums);

})([1, 2, 3, 4, 5], 3);

**Output:**

**[ 3, 4, 5, 1, 2 ]**

1. **Do the below programs in arrow functions**
   1. **Print odd numbers in an array**
2. let arr = [1, 4, 6, 8, 9, 10, 15, 12];
3. let oddNums = arr.filter((elements) => {
4. return elements % 2 != 0;
5. });
6. console.log(oddNums);

**Output:**

**[ 1, 9, 15 ]**

1. **Convert all the strings to title caps in a string array**
2. const names = ["paul", "madhu", "saran", "John"];
3. const uppercased = names.map((name) => name.toUpperCase());
4. console.log(uppercased);

**Output:**

**[ 'PAUL', 'MADHU', 'SARAN', 'JOHN' ]**

1. **Sum of all numbers in an array**
2. let num = [2, 5, 7, 8];
3. console.log(num.reduce((a, b) => a + b, 0));

**Output:**

**22**

1. **Return all the prime numbers in an array**

let prime = (arr) => {

  return arr.filter((n) => {

    for (let i = 2; i < n; i++) {

      if (n % i === 0) return false;

    }

    return n > 1;

  });

};

console.log(prime([7, 16, 9, 3]));

**Output :**

**[ 7, 3 ]**

1. **Return all the palindromes in an array**

const arr = ["carecar", "1344", "12321", "did", "cannot"];

const isPalindrome = (word) => {

  let revstr = word.split("").reverse().join("");

  if (word == revstr) {

    return true;

  } else return false;

};

const findPalindrome = (arr) => {

  return arr.filter((word) => isPalindrome(word));

};

console.log(findPalindrome(arr));

**Output :**

[ '12321', 'did' ]