1. **Programs with anonymous function and IIFE**

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| --- | --- | --- |
| **a** | **Print odd numbers in an array** | |
| **Anonymous Function** | | **IIFE** |
| var odd=function(arr){  var oddarr=[];  for (var i=0;i<=arr.length;i++){  if(arr[i]%2 == 0){  oddarr.push(arr[i]);  }  }  return oddarr;  } | | (function(arr){  var oddarr=[];  for (var i=0;i<=arr.length;i++){  if(arr[i]%2 == 0){  oddarr.push(arr[i]);  }  }  return oddarr;  })(); |
| **b** | **Convert all the strings to title caps in a string array** | |
| **Anonymous Function** | | **IIFE** |
| titleCase=function(str){  str=str.toLowerCase().split(' ');  for(var i=0; i<str.length; i++){  str[i]=str[i].charAt(0).toUpperCase()+str[i].slice(1);  }  return str.join(' ')  } | | (function(str){  str=str.toLowerCase().split(' ');  for(var i=0; i<str.length; i++){  str[i]=str[i].charAt(0).toUpperCase()+str[i].slice(1);  }  return str.join(' ')  })(); |
| **c** | **Sum of all numbers in an array** | |
| **Anonymous Function** | | **IIFE** |
| sum=function(arr){  var sum = 0;  for (var i=0; i<arr.length; i++){  sum+=arr[i];  }  Return sum;  } | | (function(arr){  var sum = 0;  for (var i=0; i<arr.length; i++){  sum+=arr[i];  }  Return sum;  })(); |
| **d** | **Return all the prime numbers in an array** | |
| **Anonymous Function** | | **IIFE** |
| prime=function(arr){  prime=[];  for(var i=0;i<arr.length;i++){  number = arr[i];  if(number<=1){  break;  }  else{  for(var i=2;i<number;i++){  if(number%1 == 0){  break;  }  else{  prime.push(number);  }  }  }  }  return prime  } | | (function(arr){  prime=[];  for(var i=0;i<arr.length;i++){  number = arr[i];  if(number<=1){  break;  }  else{  for(var i=2;i<number;i++){  if(number%1 == 0){  break;  }  else{  prime.push(number);  }  }  })();  }  return prime  } |
| **e** | **Return all the palindromes in an array** | |
| **Anonymous Function** | | **IIFE** |
| palindrome = function(arr){  for(var i=0; i<arr.length; i++){  string = arr[i];  revstring = string.split(‘’).reverse.join(‘’);  if (string == revstring)  {  palarr.push(arr[i]);  }  }  return palarr;  } | | (function(arr){  for(var i=0; i<arr.length; i++){  string = arr[i];  revstring = string.split(‘’).reverse.join(‘’);  if (string == revstring)  {  palarr.push(arr[i]);  }  }  return palarr;  })(); |
| **f** | **Return median of two sorted arrays of same size** | |
| **Anonymous Function** | | **IIFE** |
| median = function(arr1, arr2){  var i=0, j=0;  var count;  var m1 = -1, m2=-1;  for(count = 0; count<=arr1.length;count++){  if(i==n){  m1=m2;  m2=arr2[0];  break;  }  else if (j == n)  {  m1 = m2;  m2 = ar1[0];  break;  }  if (ar1[i] <= ar2[j])  {  m1 = m2;  m2 = ar1[i];  i++;  }  else  {  m1 = m2;  m2 = ar2[j];  j++;  }  }    return (m1 + m2)/2;  } | | (function(arr1,arr2){  var i=0, j=0;  var count;  var m1 = -1, m2=-1;  for(count = 0; count<=arr1.length;count++){  if(i==n){  m1=m2;  m2=arr2[0];  break;  }  else if (j == n)  {  m1 = m2;  m2 = ar1[0];  break;  }  if (ar1[i] <= ar2[j])  {  m1 = m2;  m2 = ar1[i];  i++;  }  else  {  m1 = m2;  m2 = ar2[j];  j++;  }  }    return (m1 + m2)/2;  })(); |
| **g** | **Remove duplicates from an array** | |
| **Anonymous Function** | | **IIFE** |
| unique=function(arr){  let uniqueArr = [];  for(let i of arr) {  if(uniqueArr.indexOf(i) === -1) {  uniqueArr.push(i);  }  }  return uniqueArr;  } | | (function(arr){  let uniqueArr = [];  for(let i of arr) {  if(uniqueArr.indexOf(i) === -1) {  uniqueArr.push(i);  }  }  return uniqueArr;  })(); |
| **h** | **Rotate an array by k times** | |
| **Anonymous Function** | | **IIFE** |
| rotate=function(arr, k){  n=arr.length;  k = k % n;  for (let i = 0; i < n; i++) {  if (i < k) {  return arr[n + i - k];  }  else {  return arr[i - k];  }  }  } | | (function(arr, k){  n=arr.length;  k = k % n;  for (let i = 0; i < n; i++) {  if (i < k) {  return arr[n + i - k];  }  else {  return arr[i - k];  }  }  })(); |

1. **Do the below programs in arrow functions**
2. **Print odd numbers in an array**

var odd=(arr)=>{

var oddarr=[];

for (var i=0;i<=arr.length;i++){

if(arr[i]%2 == 0){

oddarr.push(arr[i]);

}

}

return oddarr;

};

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

titleCase= (str)=>{

str=str.toLowerCase().split(' ');

for(var i=0; i<str.length; i++){

str[i]=str[i].charAt(0).toUpperCase()+str[i].slice(1);

}

return str.join(' ')

};

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

sum=(arr)=> {

var sum = 0;

for (var i=0; i<arr.length; i++){

sum+=arr[i];

}

Return sum;

};

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

prime=(arr)=>{

prime=[];

for(var i=0;i<arr.length;i++){

number = arr[i];

if(number<=1){

break;

}

else{

for(var i=2;i<number;i++){

if(number%1 == 0){

break;

}

else{

prime.push(number);

}

}

}

}

return prime

};

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

palindrome = (arr)=>{

for(var i=0; i<arr.length; i++){

string = arr[i];

revstring = string.split(‘’).reverse.join(‘’);

if (string == revstring)

{

palarr.push(arr[i]);

}

}

return palarr;

};