1. **PRINTING ODD NUMBERS IN ARRAY , USING ANANYMOUS AND IIFE FUNTIONS:**

*ANANYMOUS*

let a=[1,2,3,4,5,6,7,8,9];

var oddNum=function(arr){

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

if(a[i]%2!=0){

console.log(a[i]);

}

}

}

oddNum(a);

***IIFE***

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

if(a[i]%2!=0){

console.log(a[i]);

}

}})(a);

**2)CONVERTING ALL THE STRINGS TO TITLE CAPS IN A STRING ARRAY :**

***ANANYMOUS***

var titleCase=function (string) {

var sentence = string.toLowerCase().split(" ");

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

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

}

console.log(sentence.join(" "));

}

titleCase("very good mornig to all");

***IIFE***

(function (string) {

var sentence = string.toLowerCase().split(" ");

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

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

}

console.log(sentence.join(" "));

})("guvi is the best platform for learners");

**3)SUM OF ALL NUMBERS IN ARRAY:**

***ANANYMOUS***

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

var sum=function (arr){

let sum=0;

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

sum+=a[i];

}

console.log(sum);

}

sum(a);

***IIFE***

(function (arr){

let add=0;

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

add+=a[i];

}

console.log(add);

})(a);

**4) RETURNING ALL THE PRIME NUMBERS IN AN ARRAY**

***ANANYMOUS***

let a=[2,4,5,6,8,7,9];

for(var i=0;i<=a.length-1;i++){

if(a[i] % 2!=0 && a[i] %3 != 0){

console.log(a[i]);

}

}

var prime=function(arr){

for(var i=0;i<=a.length-1;i++){

if(a[i] % 2!=0 && a[i] %3 != 0){

console.log(a[i]);

}

}

}

prime(a);

***IIFE***

(function(arr){

for(var i=0;i<=a.length-1;i++){

if(a[i] % 2!=0 && a[i] %3 != 0){

console.log(a[i]);

}

}

})(a);

**5)RETURNING MEDIAN OF TWO SORTED ARRAY OF SAME SIZE**

***ANANYMOUS***

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

let b=[6,7,8,9,10];

//retunr the median of two sorted array in Anonymous and iife functions

var median=function(arr1,arr2){

arr1=arr1.sort();

arr2=arr2.sort();

let arr3=arr1.concat(arr2);

let arr=arr3.filter(function(item,pos){return arr3.indexOf(item)==pos

});

function median(values){

if(values.length ===0) return 0;

values.sort(function(a,b){

return a-b;

});

var half = Math.floor(values.length / 2);

if (values.length % 2)

console.log(values[half]);

else

console.log((values[half - 1] + values[half]) / 2.0);

}

median(arr);

}

median(a,b);

***IIFE***

(function(arr1,arr2){

arr1=arr1.sort();

arr2=arr2.sort();

let arr3=arr1.concat(arr2);

let arr=arr3.filter(function(item,pos){return arr3.indexOf(item)==pos

});

function median(values){

if(values.length ===0) return 0;

values.sort(function(a,b){

return a-b;

});

var half = Math.floor(values.length / 2);

if (values.length % 2)

console.log(values[half]);

else

console.log((values[half - 1] + values[half]) / 2.0);

}

median(arr);

})(a,b);

***6)RETURNING ALL THE PALINDROME IN AN ARRAY USING ANANYMOUS AND IIFE***

const readline = require('readline');

const inp = readline.createInterface({

input: process.stdin

});

const userInput = [];

inp.on("line", (data) => {

userInput.push(data);

});

inp.on("close", () => {

let a=userInput[0].split(" ");

var isPalindrome=function(){

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

if(a[i]==a[i].split("").reverse().join("")){

console.log(a[i]);

}

}

}

isPalindrome(a);

//IIFE

(function(){

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

if(a[i]==a[i].split("").reverse().join("")){

console.log(a[i]);

}

}

})(isPalindrome(a));

});

**7)REMOVE DUPLICATES IN ARRAY BY USING IIFE AND ANANYMOUS FUNCTION**

***ANANYMOUS***

//remove duplicates in Array

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

uniqueArray = a.filter(function(item, pos) {

return a.indexOf(item) == pos;

})

console.log(uniqueArray);

***IIFE***

(function(){ a.filter(function(item, pos) {

return a.indexOf(item) == pos;

})

console.log(uniqueArray);})

***8) ROTATING ARRAY BY K TIMES USING ANANYMOUS AND IIFE***

let a=[1,2,3,4,5,6,7];

var rotate=function(num,k){

for(var i=0;i<k;i++){

num.unshift(num.pop());

}

return num

}

console.log(rotate(a,3));

(function(num,k){

for(var i=0;i<k;i++){

num.unshift(num.pop());

}

return num

})(console.log(rotate(a,3)));