**Task 1: Simple Programs todo for variables**

1. Declare four variables without assigning values and print them in console

Syntax:-

var a, b, c, d

console.log(a, b, c, d);

output:-

undefined undefined undefined undefined

1. How to get value of the variable myvar as output

var myvar= 1;  
console.log("myvar");

Syntax:-

var myvar= 1;

console.log(myvar);

output:-

1

(Remove “” form “console.log(“my var”)”)

1. Declare variables to store your first name, last name, marital status, country and age in multiple lines

Syntax:-

var a="kishore";

var b="dhanbalan";

var c="married";

var d="india";

var e="26"

1. Declare variables to store your first name, last name, marital status, country and age in a single line

Syntax:-

var a="kishore"; b="dhanbalan"; c="married"; d="india"; e="26";

1. Declare variables and assign string, boolean, undefined and null data types

I am 25 years old. You are 30 years old.

Syntax:-

var a="Eobard Thawne";

var b=true;

var c;

var d=null;

console.log(a, b, c, d);

output:-

Eobard Thawne true undefined null

6. Convert the string to integer

* parseInt()
* Number()
* Plus sign(+)

Syntax:-

var a="1";

console.log(parseInt(a));

console.log(Number(a));

console.log(+a);

output:-

1

1

1

1. Write 6 statement which provide truthy & falsey values.

Syntax:-

var a = 6;

var firstCondition = a == "6"; //true

var secondCondition = a === "6" //false

var thirdCondition = a == 6; //true

var fourthCondition = a === 6; //true

var fifthCondition = a != "6";//false

var sixthCondition = a !== "6" //true

console.log(firstCondition, secondCondition, thirdCondition, fourthCondition, fifthCondition, sixthCondition);

output:-

true false true true false true

# Task 2: Simple Programs todo for Operators

1. Square of a number

Syntax:-

function square(a)

{

return a\*a;

}

console.log(square(2));

output:-

4

1. Swapping 2 numbers

Syntax:-

var a=2;

var b=3;

var temp =a

a=b;

b=temp;

console.log(a,b);

output:-

1. 2
2. Addition of 3 numbers

Syntax:-

function add(a,b)

{

return a+b;

}

console.log(add(2,3));

output:-

5

4.Celsius to Fahrenheit conversion

Input:-

2

Syntax:-

function convertToF (userInput)

{

var fahrenheit = (userInput \* (9/5)) + 32;

return fahrenheit.toFixed(2);

}

console.log (convertToF (userInput));

output:-

35.60

5.Meter to miles

Syntax:-

function meterToMiles(a)

{

return a\*0.000621371;

}

console.log(meterToMiles(2));

output:-

0.001242742

1. Pounds to kg

function poundsToKg(a)

{

return a\*0.453592;

}

console.log(poundsToKg(2));

0utput:-

0.907184

7.Calculate Batting Average

Syntax:-

function avg(a,b)

{

return (a+b)/2;

}

console.log(avg(98,100));

output:-

99

8.Calculate five test scores and print their average

Syntax:-

function avg(a,b,c,d,e)

{

return (a+b+c+d+e)/5;

}

console.log(avg(326,254,405,304,165,298));

output:-

290.8

9.Power of any number x ^ y.

Syntax:-

function avg(a,b)

{

return Math.pow(a,b);

}

console.log(avg(3,2));

output:-

9

10.Calculate Simple Interest

Sntax:-

function SI(P,R,T)

{

return (P\*R\*T)/100;

}

console.log(SI(1000,10,1));

output:-

11.Calculate area of an equilateral triangle

Syntax:-

function area(a)

{

return (Math.sqrt(3)/4)\*a\*a;

}

console.log(area(10));

output:-

43.301270189221924

12.Area Of Isosceles Triangle

Syntax:-

function area(b,h)

{

return (b\*h)/2;

}

console.log(area(2,3));

output:-

3

13.Volume Of Sphere

**Syntax:-**

function area(a)

{

return Math.pow(a,3);

}

console.log(area(2));

output:-

8

1. Volume Of Prism

Syntax:-

function area(a,b,h)

{

return (a\*b\*h)/2;

}

console.log(area(2,3,4));

output:-

12

15.Find area of a triangle.

Syntax:-

function area(b,h)

{

return (b\*h)/2;

}

console.log(area(2,3));

output:-

3

16.Give the Actual cost and Sold cost, Calculate Discount Of Product

Syntax:-

function area(a,b)

{

return (a-b)/a\*100;

}

console.log(area(100,70));

output:-

30

17.Given their radius of a circle and find its diameter, circumference and area.

Syntax:-

var r = 3;

var dia = 2\*r;

var cir = 2\*Math.PI\*r;

var area = Math.PI\*r\*r;

console.log(dia);

console.log(cir);

console.log(area);

output:-

6

18.84955592153876

28.274333882308138

18.Given two numbers and perform all arithmetic operations.

Syntax:-

var a = 3;

var b = 2;

var add = a+b;

var sub = a-b;

var mul = a\*b;

var div = a/b;

console.log(add);

console.log(sub);

console.log(mul);

console.log(div);

output:-

5

1

6

1.5

19.Display the asterisk pattern as shown below(No loop needed):

Syntax:-

var a="\*\*\*\*\*";

console.log(a);

console.log(a);

console.log(a);

console.log(a);

console.log(a);

output:-

\*\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*

1. Calculate electricity bill?  
   For example, a consumer consumes 100 watts per hour daily for one month. Calculate the total energy bill of that consumer if per unit rate is 10?

Syntax:-

function bill(a)

{

return a\*24\*30\*10

}

console.log(bill(1000));

output:-

7200000

1. Program To Calculate CGPA

Syntax:-

var A=9;

var B=8;

var C=7;

var cgpa=(A+B+C+A+A)/5;

console.log(cgpa);

output:-

8.4

# Task 3: Simple Programs todo for Condition , Looping and Arrays

1. Write a loop that makes seven calls to console.log to output the following triangle:

#  
##  
###  
####  
#####  
######  
#######

Syntax:-

function printSequence(n) {

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

var str = new Array(i + 1).join('#');

console.log(str);

}

}

printSequence(6);

**Arrays**:

var myarray=[11,22,33,44,55]

write a code to count the elements in the array . Don’t use length property

syntax:-

var a = [11,22,33,44,55];

function arrayLength(a)

{

var length = 0;

while(a[length]!==undefined){

length++;

}

return length;

}

console.log(arrayLength(a));

output:-

5

Create an array called foods holds the names of your top 20 favorite foods, starting with the best food.

Foods variable holds the names of your top 20 favorite foods, starting with the best food. How can you find your fifth favorite food?

Syntax:-

let foods = ["biriyani","noodles","pasta","pizza","burger","grill","tandoori","parotta","puri","shawarma","too yumm!","puffcorn","cake","puff","mutton kheema","danish","ice cream","jigardanda","tea","milkshake"];

console.log(foods[4]);

output:-

burger

Find the length of your foods array

let foods = ["biriyani","noodles","pasta","pizza","burger","grill","tandoori","parotta","puri","shawarma","too yumm!","puffcorn","cake","puff","mutton kheema","danish","ice cream","jigardanda","tea","milkshake"];

console.log(foods.length);

Starting from the existing friends variable below, change the element that is currently “Mari” to “Munnabai”.

let friends = [  
“Mari”,  
“MaryJane”,  
“CaptianAmerica”,  
“Munnabai”,  
“Jeff”,  
“AAK chandran”  
];

syntax:-

let friends = ["Mari","MaryJane","CaptianAmerica","Munnabai","Jeff","AAK chandran"];

friends[0]="munnabhai";

console.log(friends);

output:-

[ 'munnabhai',

'MaryJane',

'CaptianAmerica',

'Munnabai',

'Jeff',

'AAK chandran' ]

1. Get the first item, the middle item and the last item of the array

Syntax:-

let friends = ["Mari","MaryJane","CaptianAmerica","Munnabai","Jeff","AAK chandran"];

console.log(friends[0], friends[2], friends[5]);

output:-

Mari CaptianAmerica AAK Chandran

1. Add your name to the end of the friends array, and add another name to beginning.

Syntax:-

let friends = ["Mari","MaryJane","CaptianAmerica","Munnabai","Jeff","AAK chandran"];

friends[6]="kishore";

friends[0]="EobardThawye"

console.log(friends);chandran"];

friends[6]="kishore";

console.log(friends);

output:-

[ 'EobardThawye',

'MaryJane',

'CaptianAmerica',

'Munnabai',

'Jeff',

'AAK chandran',

'kishore' ]

1. Add Mr or Ms to the names in the friends array.

Syntax:-

let friends = ["Mari","MaryJane","CaptianAmerica","Munnabai","Jeff","AAK chandran"];

friends[6]="kishore";

friends[0]="EobardThawye";

friends[0]="Mr.EobardThawye";

friends[1]="Ms.MaryJane";

friends[2]="Mr.CaptianAmerica";

friends[3]="Mr.Munnabai";

friends[4]="Mr.Jeff";

friends[5]="Mr.AAK chandran";

friends[6]="Mr.kishore";

console.log(friends);

output:-

[ 'Mr.EobardThawye',

'Ms.MaryJane',

'Mr.CaptianAmerica',

'Mr.Munnabai',

'Mr.Jeff',

'Mr.AAK chandran',

'Mr.kishore' ]

4.Concat all the names the friends array and return as comma “,” seperated string.

Syntax:-

let friends = ["Mari","MaryJane","CaptianAmerica","Munnabai","Jeff","AAK chandran"];

friends[6]="kishore";

friends[0]="EobardThawye";

friends[0]="Mr.EobardThawye";

friends[1]="Ms.MaryJane";

friends[2]="Mr.CaptianAmerica";

friends[3]="Mr.Munnabai";

friends[4]="Mr.Jeff";

friends[5]="Mr.AAK chandran";

friends[6]="Mr.kishore";

var friends1=friends.join(",");

console.log(friends1);

output:-

Mr.EobardThawye,Ms.MaryJane,Mr.CaptianAmerica,Mr.Munnabai,Mr.Jeff,Mr.AAK chandran,Mr.kishore

5.Find the friends names who has letter ‘a’ and return the list.

Syntax:-

let friends = ["Mari","MaryJane","CaptianAmerica","Munnabai","Jeff","AAK chandran"];

friends[6]="kishore";

friends[0]="EobardThawye";

var result = friends.filter(friend=>friend.includes("a"));

console.log(result);

output:-

[ 'EobardThawye',

'MaryJane',

'CaptianAmerica',

'Munnabai',

'AAK chandran' ]

6. Find the avg length of all the friends names. Get the

individual length of the names and do the avg.

syntax:-

let friends = ["Mari","MaryJane","CaptianAmerica","Munnabai","Jeff","AAK chandran"];

friends[6]="kishore";

friends[0]="EobardThawye";

console.log((friends[0].length+friends[1].length+friends[2].length+friends[3].length+friends[4].length+friends[5].length+friends[6].length)/7);

output:-

9.285714285714286

 7.Find the names and return the list starting with letter M.

Syntax:-

let friends = ["Mari","MaryJane","CaptianAmerica","Munnabai","Jeff","AAK chandran"];

friends[6]="kishore";

friends[0]="EobardThawye";

var result = friends.filter(friend=>friend.includes("M"));

console.log(result);

output:-

[ 'MaryJane', 'Munnabai' ]

8. Find the name with max characters and return the name.

Syntax:-

let friends = ["Mari","MaryJane","CaptianAmerica","Munnabai","Jeff","AAK chandran"];

friends[6]="kishore";

friends[0]="EobardThawye";

var maxlen = 0;

var maxStr = '';

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

if (friends[i].length>maxlen){

maxlen = friends[i].length;

maxStr = friends[i];

}

}

console.log(maxlen, maxStr);

output:-

14 'CaptianAmerica'

9.Find the name with min characters and return the name.

Syntax:-

let friends = ["Mari","MaryJane","CaptianAmerica","Munnabai","Jeff","AAK chandran"];

friends[6]="kishore";

friends[0]="EobardThawye";

var minlen = 0;

var maxStr = '';

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

if (friends[i].length<minlen){

maxlen = friends[i].length;

maxStr = friends[i];

}

}

console.log(minlen, maxStr);

output:-

4 ‘Jeff”