Javascript Scope Exercises

1. Determine what this Javascript code will print out (without running it):

Text, letter

Description automatically generated

**Output : 10 8 8 9 10 1**

2. What is the difference between a method and function?

**Answer :**

Function or method is a block of code which perform some task. But some difference between the function and methods are:

function is independent which can be invoked by it’s name. but when a function is declared inside a class or is written as property of a object then it is called method, which is invoked by it’s (objectname.functionName).

Function: Method :

Text

Description automatically generatedGraphical user interface, text, application

Description automatically generated

3. What does 'this' refer to when used in a Java method?

**Answer:** when “this” used in a Java method it refers to the it’s current object in a method or constructor.

4. What does 'this' refer to when used in a JavaScript method?

**Answer :** As method is called the property of an object , then “this ” indicates the parents of the method, where the method is declared.

5. What does 'this' refer to when used in a JavaScript constructor function?

**Answer :** When an instance of a constructor function is created with the new keyword, then “this” defines to that newly created instance.

6. Assume object *x* is the prototype for object *y* in Javascript. Object *x* has a method *f*( ) containing keyword 'this'. When *f* is called by *x*.*f*( ), what does 'this' refer to?

**Answer :** here , “this” refers to the object x

7. What is a free variable in JavaScript?

**Answer :** A variable referred to by a function that is not one of its parameters or local variables.

8. Create an object that has properties with name = "fred" and major="music" and a property that is a function that takes 2 numbers and returns the smallest of the two, or the square of the two if they are equal.

**Answer :**

var object={

name:"fred",

major:"music",

objFunc:function(a,b){

if(a==b) return Math.sqrt(a\*b);

else if(a>b) return b;

else return a;

}

}

9. Write Javascript code for creating three *Employee* objects using the "new" keyword and a constructor function. *Employee* objects have the following fields: name, salary, position.

**Answer :**

function Employee(name,salary,position){

this.name=name;

this.salary=salary;

this.position=position;

}

var employee1=new Employee("Dominda",200000,"Tester");

var employee2=new Employee("Mazed",400000,"HR");

var employee3=new Employee("Sazed",300000,"Developer");

10. Write a Javascript function that takes any number of input arguments and returns the product of the arguments.

**Answer :**

function product(...rest){

let multiply=1;

for(let i of rest){

multiply=multiply\*i;

}

return multiply;

}

11. Write an arrow function that returns the maximum of its three input arguments.

**Answer:**

var maxFunc=(a,b,c)=>{

let max = Math.max(a,b);

return Math.max(c,max);

}