Javascript Scope Exercises

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

x = 1; var a = 5; var b = 10;

var c = function(a, b, c) {

var x = 10; document.write(x); document.write(a);

var f = function(a, b, c) {

b = a;

document.write(b);

b = c;

var x = 5;

}

f(a,b,c);

document.write(b);

}

c(8,9,10);

document.write(b);

document.write(x);

}

**Answer: 10 8 8 9 10 1**

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

**Answer: Method is belongs to Object. Function is more individual and run it directly**

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

**Answer: this refers to current object**

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

**Answer: In a javascript method this refers to owner object.**

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

**Answer: In javascript constructor function this refers to object constructor**

1. 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: this refers to x**

1. What is a free variable in JavaScript?

**Answer: Free variables are the variables that are neither locally declared nor passed as parameter.**

1. 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:

**{ 'name': "fred", 'major': "music", 'fn': (a, b) => { if(a === b) { return a \* b; } return Math.min(a, b); } }**

1. 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:

**class Employee { constructor(name, salary, position) {**

**this.name = name;**

**this.salary = salary;**

**this.position = position; }**

**}**

**const emp1 = new Employee("Tony1", 100, "Position1");**

**const emp2 = new Employee("Tony2", 200, " Position2");**

**const emp3 = new Employee("Tony3", 300, " Position3");**

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

Answer:

**function fn(...params) { return { ...params } };**

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

Answer:

**const findMax = (x, y, z) => { return Math.max(x, y, z); };**