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| **SCRIPT** | T – Diagram | | Explanation |
| 1. *function* a(x,y){ 2. return 5; 3. } 4. console.log(a(5,5)) | console.log(a(5,5)) | 5 | the return value is 5 even though none of the arguments have been used. |
| 1. *function* a(x,y){ 2. z = [] 3. z.push(x); 4. z.push(y); 5. z.push(5); 6. console.log(z); 7. return z; 8. } 9. b = a(2,2) 10. console.log(b); 11. console.log(a(6,8)); | b = a(2,2)  console.log(b);  console.log(a(6,8)); | [2,2,5]  [2,2,5]  [6,8,5]  [6,8,5] | Assigning function a() to b will invoke the function which will log the [2,2,5] and console.log(b) will log the value which is [2,2,5] and console.log(a(6,8)) will invoke the console.log inside twice |
| 1. *function* a(x){ 2. z = []; 3. z.push(x); 4. z.pop(); 5. z.push(x); 6. z.push(x); 7. return z; 8. } 9. y = a(2); 10. y.push(5); 11. console.log(y); | console.log(y); | [2,2,5] | Inside the function a(x) declaring z as empty array then using array method push to assign an array value to z then using pop to remove the element of the array. |
| 1. *function* a(x){ 2. if(x[0] < x[1]) { 3. return true; 4. } 5. else { 6. return false; 7. } 8. } 9. b = a([2,3,4,5]) 10. console.log(b); | b = a([2,3,4,5])  console.log(b) | true | Return TRUE if the value of array x positioned in index 0 is less than the value of array x positioned in index 1 else return false |
| 1. *function* a(x){ 2. for(var i=0; i<x.length; i++){ 3. if(x[i] > 0){ 4. x[i] = “Coding”; 5. } 6. } 7. return x; 8. } 9. console.log(a([1,2,3,4])) | x[0] = “Coding”  x[1] = “Coding”  x[2] = “Coding”  x[3] = “Coding”  console.log(a([1,2,3,4])) | ["coding", "coding", "coding", "coding"] | Parameter x will mutated by the loop if every value from the array is greater than 0 |
| 1. *function* a(x){ 2. for(var i=0; i<x.length; i++){ 3. if(x[i] > 5){ 4. x[i] = “Coding”; 5. } 6. else if(x[i] < 0){ 7. x[i] = “Dojo”; 8. } 9. } 10. return x; 11. } 12. console.log(a([5,7,-1,4])) | x[0] = 5;  x[1] = “Coding”;  x[2] = “Dojo”  x[3] = 4 | [5, "Coding", "Dojo", 4] | The index 1 and 2 of array x will be mutated because if and else if statement condition have been met |
| 1. *function* a(x){ 2. if(x[0] > x[1]) { 3. return x[1]; 4. } 5. return 10; 6. } 7. b = a([5,10]) 8. console.log(b); | b = a([5,10])  console.log(b); | 10 |  |
| 1. *function* sum(x){ 2. sum = 0; 3. for(var i=0; i<x.length; i++){ 4. sum = sum + x[i]; 5. console.log(sum); 6. } 7. return sum; 8. } 9. b = sum([1,2,3,4,5]) 10. console.log(b); | sum = 0 + 1;  sum = 1 + 2;  sum = 3 + 3;  sum = 6 + 4;  sum = 10 + 5;  console.log(b); | 15 |  |