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| **SCRIPT** | T – Diagram | | Explanation |
| 1. *function* multiply(x,y){ 2. console.log(x); 3. console.log(y); 4. } 5. b = multiply(2,3); 6. console.log(b); | b = multiply(2,3);  console.log(b); | 2  3  undefined | It will log the x and y  and since there is no returned value for the function the b will be undefined |
| 1. *function* multiply(x,y){ 2. return x\*y; 3. } 4. b = multiply(2,3); 5. console.log(b); 6. console.log(multiply(5,2)); | console.log(b);  console.log(multiply(5,2)); | 6  10 |  |
| 1. var x = [1,2,3,4,5,10]; 2. for(var i=0; i<5; i++) 3. { 4. i = i + 3; 5. console.log(i); 6. } | i = 0 + 3  I = 4 + 3 | 3  7 | var x was not used  the previews value of will increment by 1 then it will add 3 |
| 1. var x=15; 2. console.log(x); 3. *function* awesome(){ 4. var x=10; 5. console.log(x); 6. } 7. console.log(x); 8. awesome(); 9. console.log(x); | console.log(x);  console.log(x);  awesome();  console.log(x); | 15  15  10  15 | There is no mutation because of scope limitation of the variable. The function awesome declared its own variable inside of it. |
| 1. for(var i=0; i<15; i+=2){ 2. console.log(i); 3. } | i = 0  i = 0 + 2  i = 2 + 2  i = 4 + 2  i = 6 + 2  i = 8 + 2  i = 10 + 2  i = 12 + 2  i = 14 | 0  2  4  6  8  10  12  14 | Since the condition is i < 15 and equates to 14 < 15 that will result to false then the loop will stop |
| 1. for(var i=0; i<3; i++){ 2. for(var j=0; j<2; j++){   console.log(i\*j);   1. } 2. } | console.log(0\*0);  console.log(0\*1);  console.log(1\*0);  console.log(1\*1);  console.log(2\*0);  console.log(2\*1); | 0  0  0  1  0  2 |  |
| 1. *function* looping(x,y){ 2. for(var i=0; i<x; i++){ 3. for(var j=0; j<x; j++){    * 1. console.log(i\*j); 4. } 5. } 6. } 7. z = looping(3,3); 8. console.log(z); | console.log(0\*0);  console.log(0\*1);  console.log(0\*2);  console.log(1\*0);  console.log(1\*1);  console.log(1\*2);  console.log(2\*0);  console.log(2\*1);  console.log(2\*2);  console.log(z) | 0  0  0  0  1  2  0  2  4  undefined | There is no returned value for the function looping therefore the value of the z is undefined. |
| 1. *function* looping(x,y){ 2. for(var i=0; i<x; i++){ 3. for(var j=0; j<y; j++){    1. console.log(i\*j); 4. } 5. } 6. return x\*y; 7. } 8. z = looping(3,5); 9. console.log(z); | console.log(0\*0);  console.log(0\*1);  console.log(0\*2);  console.log(0\*3);  console.log(0\*4);  console.log(1\*0);  console.log(1\*1);  console.log(1\*2);  console.log(1\*3);  console.log(1\*4);  console.log(2\*0);  console.log(2\*1);  console.log(2\*2);  console.log(2\*3);  console.log(2\*4);  console.log(z); | 0  0  0  0  0  0  1  2  3  4  0  2  4  6  8  15 | Argument 3 \* the argument 5 was the retuned values that is assigned to z |