### Basic Level

1. What is the default index of the first element in a JavaScript array?
   * 1. 1
     2. 0
     3. -1
     4. Length of the array
2. What is the correct syntax for declaring an empty array in JavaScript?
   * 1. var arr = ()
     2. var arr = []
     3. var arr = {}
     4. var arr = null
3. How do you access the second element in the array var arr = [1, 2, 3]?
   * 1. arr[1]
     2. arr[2]
     3. arr[3]
     4. arr[0]
4. What loop would you use when you know the exact number of iterations beforehand?
   * 1. while
     2. do-while
     3. for
     4. for-in
5. What does the following code output?

* var arr = [10, 20, 30];  
  for (var i = 0; i < arr.length; i++) {  
   console.log(arr[i]);  
  }
  + 1. 10, 20, 30
    2. 30, 20, 10
    3. undefined
    4. Error

1. In a while loop, the condition is checked:
   * 1. Before each iteration
     2. After each iteration
     3. Only once at the beginning
     4. Only once at the end
2. Which loop is guaranteed to execute at least once?
   * 1. while
     2. do-while
     3. for
     4. for-of
3. How do you assign the value 5 to the first index of var arr = [1, 2, 3]?
   * 1. arr[1] = 5
     2. arr[0] = 5
     3. arr[2] = 5
     4. arr[3] = 5
4. What will the following code output?

* var arr = [1, 2, 3];  
  var i = 0;  
  while (i < arr.length) {  
   console.log(arr[i]);  
   i++;  
  }
  + 1. 1, 2, 3
    2. 3, 2, 1
    3. undefined
    4. Error

1. What will the following code output? javascript var arr = [1, 2, 3]; var i = 3; do { console.log(arr[i]); i--; } while (i >= 0);
   * 1. 1, 2, 3
     2. 3, 2, 1
     3. undefined, 3, 2, 1
     4. Error

### Intermediate Level

1. What is the correct way to iterate over each element in an array using for-of?
   * 1. for (var i of arr) { console.log(i); }
     2. for (var i in arr) { console.log(i); }
     3. for (i = 0; i < arr.length; i++) { console.log(i); }
     4. for (var i = 0; arr[i]; i++) { console.log(i); }
2. What does the following code output? javascript var arr = [10, 20, 30]; for (var i in arr) { console.log(i); }
   * 1. 10, 20, 30
     2. 0, 1, 2
     3. 1, 2, 3
     4. undefined
3. What does the following code output? javascript var arr = [10, 20, 30]; for (var i of arr) { console.log(i); }
   * 1. 10, 20, 30
     2. 0, 1, 2
     3. undefined
     4. Error
4. Which loop is best suited for iterating through object properties?
   * 1. for
     2. while
     3. for-in
     4. for-of
5. What is the output of the following code? javascript var arr = [1, 2, 3]; for (var i = 0; i < arr.length; i++) { if (arr[i] == 2) continue; console.log(arr[i]); }
   * 1. 1, 2, 3
     2. 1, 3
     3. 2, 3
     4. 3
6. How would you skip over the third element in this array and continue looping? javascript var arr = [1, 2, 3, 4];
   * 1. Use break
     2. Use continue with condition if (i === 2)
     3. Modify loop condition i !== 2
     4. None of the above
7. What will the following code output? javascript var arr = [1, 2, 3]; for (var i = 0; i < arr.length; i++) { if (i == 1) break; console.log(arr[i]); }
   * 1. 1, 2
     2. 1
     3. 2
     4. Error
8. How would you iterate over an array in reverse order using a for loop?
   * 1. for (var i = arr.length; i >= 0; i++)
     2. for (var i = arr.length - 1; i >= 0; i--)
     3. for (var i = 0; i < arr.length; i++)
     4. for (var i = 0; arr[i] != null; i++)
9. How would you loop through an array and print only the even values?
   * 1. for (var i of arr) { if (i % 2 == 0) console.log(i); }
     2. for (var i in arr) { if (arr[i] % 2 == 0) console.log(arr[i]); }
     3. for (var i = 0; i < arr.length; i++) { if (arr[i] % 2 == 0) console.log(arr[i]); }
     4. All of the above
10. What will the following code output? javascript var arr = [1, 2, 3, 4, 5]; var i = 0; while (i < arr.length) { if (arr[i] === 3) break; console.log(arr[i]); i++; }
    * 1. 1, 2, 3
      2. 1, 2
      3. 1
      4. 1, 2, 3, 4

### Advanced Level

1. How would you manually implement an infinite loop that prints array values continuously?
   * 1. for (var i = 0;; i++)
     2. while (true)
     3. do {} while (true)
     4. All of the above
2. Which loop would best suit a situation where you need to print the array’s contents until a specific condition is met?
   * 1. while
     2. for
     3. do-while
     4. Both a and c
3. What does the following code output? javascript var arr = [1, 2, 3]; for (var i in arr) { arr[i] += 1; } console.log(arr);
   * 1. [2, 3, 4]
     2. [1, 2, 3]
     3. Error
     4. undefined
4. In a for-of loop, what does the loop iterate over?
   * 1. Indexes
     2. Values
     3. Both indexes and values
     4. None of the above
5. What is the correct syntax for a for-of loop?
   * 1. for (var i in arr)
     2. for (var i = 0; i < arr.length; i++)
     3. for (var i of arr)
     4. for (arr[i] of arr)
6. How would you stop the iteration and

exit the loop once a specific value is encountered in an array? - a) continue - b) break - c) return - d) exit

1. What does the following code output? javascript var arr = [1, 2, 3]; for (var i in arr) { if (i == 2) break; console.log(i); }
   * 1. 1, 2
     2. 0, 1
     3. 1, 2, 3
     4. Error
2. How would you ensure a loop stops when it reaches a specific value in an array?
   * 1. if (arr[i] == value) break;
     2. if (arr[i] != value) continue;
     3. if (arr[i] > value) break;
     4. All of the above
3. How do you iterate through an array without using the array’s .length property?
   * 1. while(arr[i])
     2. while(arr[i] !== undefined)
     3. do {} while (arr[i])
     4. All of the above
4. Which of the following loops would iterate over the **keys** of an array?
   * 1. for
     2. for-in
     3. for-of
     4. while
5. What does the following code output? javascript var arr = [1, 2, 3, 4]; var sum = 0; for (var i = 0; i < arr.length; i++) { sum += arr[i]; } console.log(sum);
   * 1. 10
     2. 6
     3. 3
     4. Error
6. How would you iterate over an array and calculate the product of all elements in JavaScript using a while loop?
   * 1. Use a for-in loop
     2. Use while (i < arr.length)
     3. Use for (var i of arr)
     4. Use for (var i = 0; i < arr.length; i++)
7. What is the primary difference between for-in and for-of loops when iterating over arrays?
   * 1. for-in iterates over values, for-of over indexes
     2. for-in iterates over indexes, for-of over values
     3. for-in is used for arrays, for-of for objects
     4. for-in and for-of are identical
8. What is the output of the following code? javascript var arr = [5, 10, 15]; var i = 0; do { console.log(arr[i]); i++; } while (i < arr.length);
   * 1. 5, 10, 15
     2. 15, 10, 5
     3. 5, 15, 10
     4. undefined
9. How would you stop the iteration through the array at a certain element and continue with the next iteration?
   * 1. return
     2. break
     3. continue
     4. exit
10. What is the result of this code? javascript var arr = [1, 2, 3, 4]; for (var i in arr) { arr[i] \*= 2; } console.log(arr);
    * 1. [1, 2, 3, 4]
      2. [2, 4, 6, 8]
      3. undefined
      4. Error
11. Which of the following loops is generally used to iterate over array **indexes**?
    * 1. for-of
      2. for
      3. for-in
      4. Both b and c
12. How do you properly increment the index variable inside a while loop to avoid an infinite loop?
    * 1. i--
      2. i++
      3. arr[i]++
      4. while(i < arr.length)
13. What will the following code output? javascript var arr = [10, 20, 30, 40]; var sum = 0; var i = 0; while (i < arr.length) { sum += arr[i]; i++; } console.log(sum);
    * 1. 100
      2. 60
      3. 110
      4. Error
14. What will happen if you write a do-while loop without a terminating condition that eventually becomes false?
    * 1. The loop will run indefinitely
      2. The loop will run only once
      3. The loop will throw an error
      4. The loop will not run at all
15. How do you reverse iterate through an array using a do-while loop?
    * 1. Start the loop with arr.length - 1 and decrement
      2. Use i-- and while (i >= 0)
      3. Both a and b
      4. Impossible using do-while
16. What does the following code output? javascript var arr = [10, 20, 30]; var i = 2; do { console.log(arr[i]); i--; } while (i >= 0);
    * 1. 10, 20, 30
      2. 30, 20, 10
      3. 10, 20
      4. Error
17. How would you print only the odd numbers in the following array using a for loop? javascript var arr = [1, 2, 3, 4, 5];
    * 1. Use if (arr[i] % 2 != 0) console.log(arr[i]);
      2. Use if (arr[i] % 2 == 0) continue;
      3. Use if (arr[i] % 2 != 0) break;
      4. Both a and b
18. What will this code output? javascript var arr = [1, 2, 3, 4, 5]; for (var i = 0; i < arr.length; i++) { if (arr[i] > 3) break; console.log(arr[i]); }
    * 1. 1, 2, 3
      2. 1, 2
      3. 1, 2, 3, 4
      4. Error
19. How can you loop over the array and stop once you find a specific number? javascript var arr = [4, 5, 6, 7];
    * 1. Use break inside an if statement
      2. Use continue inside an if statement
      3. Use return inside the loop
      4. It’s not possible
20. What is the result of this code? javascript var arr = [5, 10, 15]; for (var i = 0; i < arr.length; i++) { arr[i] += 5; } console.log(arr);
    * 1. [10, 15, 20]
      2. [5, 10, 15]
      3. [5, 5, 5]
      4. Error
21. What does this code output? javascript var arr = [1, 2, 3]; for (var i of arr) { if (i === 2) continue; console.log(i); }
    * 1. 1, 2, 3
      2. 1, 3
      3. 1, 2
      4. undefined
22. How do you write a for loop that skips the first two elements in an array?
    * 1. Start the loop from i = 2
      2. Use if (i < 2) continue
      3. Decrement i after every iteration
      4. Both a and b
23. How would you add the elements of an array into a total using a for-in loop?
    * 1. Loop over the keys and sum the array values
      2. Loop over the values and sum them directly
      3. Use the for-in loop to get both index and values
      4. Not possible with for-in
24. How can you iterate over both the index and the value of each element in the array?
    * 1. Use for-in
      2. Use for-of with .entries()
      3. Use for with arr[i]
      4. All of the above