

Quiz on Arrays & strings

1. What does the push() method do in TypeScript?
 - A) Removes the last element of an array
 - B) Adds one or more elements to the end of an array
 - C) Adds one or more elements to the beginning of an array
 - D) Removes the first element of an array
2. What is the output of ["a", "b"].pop()?
 - A) "a"
 - B) "b"
 - C) ["a"]
 - D) ["b"]
3. What does the shift() method do?
 - A) Adds an element to the end
 - B) Removes the first element
 - C) Removes the last element
 - D) Adds an element to the beginning
4. Which method adds an element to the beginning of an array?
 - A) push()
 - B) shift()
 - C) pop()
 - D) unshift()
5. What is the output of ["a"].concat(["b", "c"])?
 - A) ["a", ["b", "c"]]
 - B) ["a", "b", "c"]
 - C) ["a", "c", "b"]
 - D) ["b", "c", "a"]
6. The slice() method:
 - A) Modifies the original array
 - B) Returns a new array
 - C) Deletes the selected elements

- D) None of the above
- 7. What is returned by slice(1, 3) on [1, 2, 3, 4, 5]?
 - A) [2, 3]
 - B) [1, 2, 3]
 - C) [2, 3, 4]
 - D) [3, 4]
- 8. What does splice() do?
 - A) Extracts a part of the array without modifying it
 - B) Adds/removes items from an array
 - C) Converts array to string
 - D) Sorts the array
- 9. What is the result of ["a", "b", "c"].indexOf("b")?
 - A) 0
 - B) 1
 - C) 2
 - D) -1
- 10. The includes() method returns:
 - A) The position of the item
 - B) true or false
 - C) The last element
 - D) None
- 11. What does toString() return for [1, 2, 3]?
 - A) 1+2+3
 - B) "1,2,3"
 - C) [1,2,3]
 - D) "123"
- 12. Which method is used to loop through every array item?
 - A) map()
 - B) forEach()
 - C) reduce()
 - D) indexOf()

13. What does `map()` return?

- ☐ A) A single value
- ☐ B) A string
- ☐ C) A new array
- ☐ D) The original array

14. Which method is used to filter array elements based on condition?

- ☐ A) `map()`
- ☐ B) `filter()`
- ☐ C) `forEach()`
- ☐ D) `reduce()`

15. What does `reduce()` return?

- ☐ A) A new array
- ☐ B) A single value
- ☐ C) A string
- ☐ D) A boolean

16. Which method checks if **any** array element matches a condition?

- ☐ A) `every()`
- ☐ B) `some()`
- ☐ C) `map()`
- ☐ D) `includes()`

17. Which method checks if **all** array elements match a condition?

- ☐ A) `some()`
- ☐ B) `every()`
- ☐ C) `filter()`
- ☐ D) `find()`

18. What is the result of `["a", "b", "c"].splice(1, 1)`?

- ☐ A) `["b"]`
- ☐ B) `["a", "b", "c"]`
- ☐ C) `["a", "c"]`
- ☐ D) `["b", "c"]`

19. What happens to the original array after calling `splice()`?

- A) Nothing
- B) It's modified
- C) It's reversed
- D) It becomes a string

20. What is returned by `["x", "y", "z"].includes("y")`?

- A) 1
- B) true
- C) false
- D) "y"

21. What is the output of `"hello".length`?

- A) 4
- B) 5
- C) 6
- D) length

22. What does `toUpperCase()` do?

- A) Converts all characters to lowercase
- B) Converts all characters to uppercase
- C) Capitalizes only the first letter
- D) Adds uppercase letters

23. `"WORLD".toLowerCase()` returns:

- A) "WORLD"
- B) "world"
- C) WORLD
- D) "World"

24. What does `"abc".charAt(1)` return?

- A) "a"
- B) "b"
- C) "c"
- D) undefined

25. What is returned by `"hello world".indexOf("world")`?

- A) 0

- B) 5
- C) 6
- D) -1

26. `"typescript".includes("script")` returns:

- A) true
- B) false
- C) "script"
- D) undefined

27. `"JavaScript".startsWith("Java")` returns:

- A) true
- B) false
- C) "Java"
- D) 0

28. `"test.ts".endsWith(".ts")` returns:

- A) false
- B) ".ts"
- C) true
- D) undefined

29. `"foo bar".replace("bar", "baz")` gives:

- A) "foo bar"
- B) "foo baz"
- C) "baz foo"
- D) "foobar"

30. `"a,b,c".split(",")` returns:

- A) "a b c"
- B) ["a", "b", "c"]
- C) "abc"
- D) ["a b c"]

31. `" space ".trim()` returns:

- A) "space"
- B) " space"

- C) "space "
- D) " space "

32. "start".trimStart() returns:

- A) "start"
- B) " start"
- C) "start "
- D) " start "

33. "end ".trimEnd() returns:

- A) "end"
- B) " end"
- C) "end "
- D) " end "

34. What is the type of return value of split()?

- A) String
- B) Number
- C) Array
- D) Boolean

35. toUpperCase() and toLowerCase():

- A) Mutate the original string
- B) Return new strings
- C) Return a boolean
- D) Only work on arrays

36. What does it mean when we say strings are immutable in TypeScript?

- A) You can change characters directly
- B) Strings can't be deleted
- C) String values cannot be changed after creation
- D) Strings can be changed in place

37. What happens when you run `let s = "hi"; s[0] = "H";`?

- A) "Hi"
- B) "hi"
- C) "hi" with error

- D) "H"

38. How can you "change" a string in TypeScript?

- A) Using `replace()`
- B) Modifying the character directly
- C) `splice()`
- D) `split()`

39. Which of the following statements is true?

- A) Strings are mutable like arrays
- B) `trim()` modifies the original string
- C) String methods return new strings
- D) String values can be reassigned by index

40. What is a correct way to convert the string "typescript" to "TypeScript"?

- A) `"typescript".toUpperCase()`
- B) `"typescript".replace("typescript", "TypeScript")`
- C) Modify "t" to "T"
- D) `"typescript"[0] = "T"`

41. Which method is best to add an item to the end of an array?

- A) `push()`
- B) `unshift()`
- C) `pop()`
- D) `shift()`

42. How to remove the last item of an array?

- A) `shift()`
- B) `pop()`
- C) `splice()`
- D) `slice()`

43. How to return only uppercase strings from an array?

`let arr = ["one", "TWO", "three"];`

- A) `arr.filter(x => x === x.toUpperCase())`
- B) `arr.map(x => x.toUpperCase())`
- C) `arr.forEach(x => x.toUpperCase())`

- D) `arr.includes(x => x.toUpperCase())`
- 44. `"hello".split("").reverse().join("")` returns:
 - A) `"hello"`
 - B) `"olleh"`
 - C) `["h", "e", "l", "l", "o"]`
 - D) Error
- 45. Which array method is used for accumulating a value?
 - A) `reduce()`
 - B) `map()`
 - C) `filter()`
 - D) `every()`
- 46. How to check if any string in an array contains the word "error"?
 - A) `arr.map(x => x.includes("error"))`
 - B) `arr.some(x => x.includes("error"))`
 - C) `arr.every(x => x.includes("error"))`
 - D) `arr.find(x => x.includes("error"))`
- 47. `" spaced string ".trimStart().length` returns:
 - A) Same as original
 - B) Less than original
 - C) More than original
 - D) Error
- 48. Which method converts an array to a comma-separated string?
 - A) `join()`
 - B) `toString()`
 - C) `split()`
 - D) Both A & B
- 49. `"abc".toUpperCase().charAt(0)` returns:
 - A) `"A"`
 - B) `"a"`
 - C) `"ABC"`
 - D) `"b"`

50. " x ".trim().toUpperCase() returns:

- A) " X "
- B) "X"
- C) " x "
- D) " x"

Answers:

1. B
2. B
3. B
4. D
5. B
6. B
7. A
8. B
9. B
10. B
11. B
12. B
13. C
14. B
15. B
16. B
17. B
18. A
19. B
20. B
21. B
22. B
23. B
24. B

- 25. B
- 26. A
- 27. A
- 28. C
- 29. B
- 30. B
- 31. A
- 32. A
- 33. A
- 34. C
- 35. B
- 36. C
- 37. B
- 38. A
- 39. C
- 40. B
- 41. A
- 42. B
- 43. A
- 44. B
- 45. A
- 46. B
- 47. B
- 48. D
- 49. A
- 50. B