

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"];
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- 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