

1–8: Variables, ID & Class Access

1. How do you declare a variable using `let` and assign it a string?
2. How do you access an element by its id using JavaScript?
3. How do you access elements by class name?
4. What's the difference between `getElementById()` and `querySelector()`?
5. How do you change the text inside an element with a given id?
6. Write JavaScript to change the background color of an element with a specific class.
7. How do you add a new class to an HTML element using JavaScript?
8. How can you toggle a class on an element?

9–16: Operators

9. What is the output of `5 == '5'` and why?
10. What is the difference between `===` and `==`?
11. Use an arithmetic operator to calculate the average of three numbers.
12. What is the output of `10 % 3`?
13. What will be the result of `4 + true`?

14. Use a ternary operator to check if a number is positive.

15. What does `!==` mean?

16. What will `typeof null` return?

17–24: Arrays

17. Create an array of three student names.

18. How do you access the last item in an array?

19. Add an item to the start of an array using JavaScript.

20. Remove the last item from an array.

21. Use for loop to print each item in an array.

22. What does the `array.length` property return?

23. Use `forEach` to iterate over an array and print all items.

24. How do you check if a variable is an array?

25–30: Arrow Functions

25. Write an arrow function to multiply two numbers.

26. Convert a traditional function to an arrow function.

27. Write an arrow function that returns the square of a number.
28. Create an arrow function that returns a greeting message.
29. Use an arrow function inside `map()` to double each number in an array.
30. What is the difference in this context between arrow and regular functions?

31–35: Event Handling

31. How do you add a click event to a button in JavaScript?
32. Write JavaScript that changes the text of a paragraph when a button is clicked.
33. How do you add a mouseover event to an element?
34. Write an event handler that logs the value of an input field when typing.
35. What's the purpose of `preventDefault()` in event handling?

36–40: Forms

36. How do you get the value of an input field using JavaScript?
37. Write JavaScript to validate if a form field is not empty.
38. How do you handle form submission using JavaScript?

39. How do you stop a form from refreshing the page when submitted?

40. How can you reset a form using Javascript?