

JavaScript 1

1. Name the three ways to declare a variable?

Var, let, const

2. Which of the three variable declarations should you avoid and why?

var as it is more commonly used for legacy code.

3. What rules should you follow when naming variables?

Naming must contain only letters, numbers, or the symbols \$ and _

First character should not be a number

Variables are case sensitive.

There are list of reserved words that cant be used as variable names

4. What should you look out for when using the + operator with numbers and Strings?

JavaScript uses the + operator for both addition and concatenation.

Numbers are added. Strings are concatenated.

5. How does the % operator work?

Returns the remainder of operand.

6. Explain the difference between == and ===.

== Doesn't take into account datatypes while === does.

7. When would you receive a NaN result?

Number cannot be parsed (e.g. parseInt("something") or Number(undefined))

Math operation where the result is not a real number (e.g. Math.sqrt(-1))

Operand of an argument is NaN (e.g. 7 ** NaN)

Indeterminate form (e.g. 0 * Infinity, or undefined + undefined)

Any operation that involves a string and is not an addition operation (e.g. "foo" / 3)

8. How do you increment and decrement a number?

++ and --

9. Explain the difference between prefixing and post-fixing increment/decrement operators.

Postfix:

```
let x = 3;
```

```
y = x++;
```

```
// y = 3
```

```
// x = 4
```

Prefix:

```
let a = 2;
```

```
b = ++a;
```

```
// a = 3
```

```
// b = 3
```

10. What is operator precedence and how is it handled in JS?

Operator precedence determines how operators are parsed concerning each other. Operators with higher precedence become the operands of operators with lower precedence.

11. How do you log information to the console?

```
Console.log()
```

12. What does unary plus operator do to string representations of integers?

Converts other data types into a number.

13. What are the eight data types in JavaScript?

String, Number, Boolean, Null, Undefined, Symbol, BigInt, Object.

14. Which data type is NOT primitive?

Array, Object

15. What is the relationship between null and undefined?

Null: It is the intentional absence of the value. It is one of the primitive values of JavaScript.

Undefined: It means the value does not exist in the compiler.

16. What is the difference between single, double, and backtick quotes for strings?

single quotes (' ') and double quotes (" ") are used to create string literals.

17. What is the term for embedding variables/expressions in a string?

String interpolation

18. Which type of quote lets you embed variables/expressions in a string?

“ ” and ‘ ’ and ` `

19. How do you embed variables/expressions in a string?

“the result is: “ + result;

20. How do you escape characters in a string?

“It\'s okay”

21. What is the difference between the slice/substring/substr string methods?

slice() extracts parts of a string and returns the extracted parts in a new string.

substr() extracts parts of a string, beginning at the character at the specified position, and returns the specified number of characters.

substring() extracts parts of a string and returns the extracted parts in a new string.

22. What are the three logical operators and what do they stand for?

&& = AND

|| = OR

!= NOT

23. What are the comparison operators?

operators that compare values and return true or false. Operators include (>, <, <=, >=, ===, !==)

24. What are truthy and falsy values?

Truthy value the value that considered true in a boolean context

Falsy value the value that considered false in a boolean context

25. What are the falsy values in JavaScript?

undefined , null , NaN , 0 , "" (empty string), and false.

26. What are conditionals?

Controls behavior in JS code to decide if a piece of the code can run or not. There are multiple different types of conditionals in JavaScript including: “If” statements: where if a condition is true it is used to specify execution for a block of code.

27. What is the syntax for an if/else conditional?

if (condition) {

True block of statements

}

Else {

False block of statements

```
}
```

28. What is the syntax for a switch statement?

```
switch(expression) {  
    case x:  
        // code block  
        break;  
    case y:  
        // code block  
        break;  
    default:  
        // code block  
}
```

29. What is the syntax for a ternary operator?

a condition followed by a question mark (?), then an expression to execute if the condition is `truthy` followed by a colon (:), and finally the expression to execute if the condition is `falsy`.

30. What is nesting?

It's when you can have a function inside another function.

31. What are functions useful for?

Functions are useful because they help you perform a particular task. It invokes something.

32. How do you invoke a function?

Functions are invoked when "something" invokes (calls) the function:

- When an event occurs (when a user clicks a button)
- When it is invoked (called) from JavaScript code
- Automatically (self invoked)

33. What are anonymous functions?

Anonymous Function is a function that does not have any name associated with it. Normally we use the `function` keyword before the function name to define a function in JavaScript, however, in anonymous functions in JavaScript, we use only the `function` keyword without the function name.

34. What is function scope?

Scope determines the accessibility (visibility) of variables.

JavaScript has 3 types of scope:

Block scope

Function scope

Global scope

35. What are return values?

Return values is when JavaScript passes a value from a function back to the code that called it by using the return statement. The value to be returned is specified in the return. That value can be a constant value, a variable, or a calculation where the result of the calculation is returned.

36. What are arrow functions?

Arrow functions are a new way to write anonymous function expressions.