

✦ Using Math Expressions in JavaScript

In JavaScript, **wherever you can use a number, you can also use a math expression.**

🔢 Assigning Numbers & Math Expressions to Variables

✓ Assigning a **literal number**:

```
var popularNumber = 4;
```

✓ Assigning a **math expression**:

```
var popularNumber = 2 + 2; // popularNumber is 4
```

✓ Using **math expressions in alert boxes**:

```
alert(2 + 2); // Displays "4"
```

🔢 Basic Arithmetic Operations in JavaScript

Operator	Description	Example	Result
+	Addition	var sum = 10 + 5;	sum = 15
-	Subtraction	var difference = 20 - 8; difference = 12	
*	Multiplication	var product = 3 * 12;	product = 36
/	Division	var quotient = 25 / 5;	quotient = 5

✓ Example:

```
var num = 10;  
var popularNumber = num + 200; // popularNumber = 210
```

✓ Using **only variables**:

```
var num = 10;
```

```
var anotherNum = 1;  
var popularNumber = num + anotherNum; // popularNumber = 11
```

🔗 What is the % (Modulus) Operator?

The **modulus operator (%)** returns the remainder when dividing one number by another.

✓ Example:

```
var whatsLeftOver = 10 % 3; // Result: 1 (because 10 ÷ 3 = 3 remainder 1)
```

✓ If a number divides evenly, the remainder is **0**:

```
var whatsLeftOver = 9 % 3; // Result: 0 (because 9 ÷ 3 = 3 remainder 0)
```

This is useful for checking if a number is even or odd:

```
var number = 15;  
if (number % 2 === 0) {  
  console.log("Even number");  
} else {  
  console.log("Odd number");  
}  
// Output: "Odd number"
```

★ Quick Summary

- ✓ Math expressions can be used **anywhere a number can be used**.
 - ✓ **Basic arithmetic operators**: +, -, *, /.
 - ✓ % (modulus) **returns the remainder** after division.
 - ✓ **Numbers & variables can be mixed** in expressions.
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