

# Creating & Naming Variables

Learn how to create and name variables in JavaScript. Learn what variable names are valid.

## Creating a Variable

We create a variable with the `let` keyword. We write `let` and then the variable name we want afterward. We give it the value we want using `=`, just like a line from algebra.

```
1 let number = 10;
```



The variable `number` now has the value `10`.

Note that we add a semicolon at the end. This isn't required, but it is highly recommended and most code you see in the wild will use semicolons. There are rare cases where not using semicolons can lead to an error. We'll use them consistently throughout this course. They should be used at the end of every statement, which effectively means at the end of every line.

We can also use the `var` keyword to declare a variable. It does essentially the same thing but behaves a little differently, sometimes in unexpected ways.

`let` was added to the language in 2015.

```
1 var number = 10;
```



We'll stick with `let` in this course as it's now the industry standard.

## Naming Variables

A variable name must follow these rules:

- Variable names must begin with a letter, `$`, or `_`
- Variable names can contain letters, numbers, `_`, and `$`
- Variables are case sensitive - `number` is different from `Number`
- Reserved JavaScript keywords (such as `let` and `var`) cannot be used as variable names

As long as we follow these rules, we can name a variable whatever we like. The following are valid JavaScript variable names.

Feel free to run this code and try out different variable names. If all variable names are valid, we'll see the word "Succeeded" pop up when we run it. If one or more variables are invalid, we'll see an error.

```
1 let x = 17;  
2 let XYZ = 20;  
3 let $ = 40;  
4 let _ = 88;  
5 let $$_$$_ = 100;  
6 let Ab90$__a789 = 119;
```



We'll learn about types of variables in the next lesson.