

let

Declares a new variable.

A variable is a container for a value. For example, a variable might contain a creature's x-coordinate as a `Number` or its name as a `String`. Variables can change value by reassigning them as follows:

```
// Declare the variable x and assign it the value 10.  
let x = 10;  
  
// Reassign x to 50.  
x = 50;
```

Variables have block scope. When a variable is declared between curly braces `{}`, it only exists within the block defined by those braces. For example, the following code would throw a `ReferenceError` because `x` is declared within the `setup()` function's block:

```
function setup() {  
  createCanvas(100, 100);  
  
  let x = 50;  
}  
  
function draw() {  
  background(200);  
  
  // x was declared in setup(), so it can't be referenced here.  
  circle(x, 50, 20);  
}
```

Variables declared outside of all curly braces `{}` are in the global scope. A variable that's in the global scope can be used and changed anywhere in a sketch:

```
let x = 50;  
  
function setup() {  
  createCanvas(100, 100);  
}  
  
function draw() {  
  background(200);  
  
  // Change the value of x.  
  x += 10;  
  
  circle(x, 50, 20);  
}
```

Examples

▶ ■ ✖️ ⌂

```
function setup() {  
  createCanvas(100, 100);  
  
  background(220);  
  
  // Style the text.  
  textAlign(CENTER);  
  textSize(16);  
  
  // Create the message variable.  
  let message = 'Hello, 🌎!';  
  
  // Display the message.  
  text(message, 50, 50);  
  
  describe('The text "Hello, 🌎!" written on a gray  
background.');
```

▶ ■ ✖️ ⌂

```
let x = 0;  
  
function setup() {  
  createCanvas(100, 100);  
  
  describe('A white circle moves from left to right against a  
gray background.');
```

▶ ■ ✖️ ⌂

```
function draw() {  
  background(220);  
  
  // Change the value of x.  
  x += 1;  
  
  circle(x, 50, 20);  
}
```

This page is generated from the comments in `src/core/reference.js`. Please feel free to edit it and submit a pull request!

Related References

class
A template for creating objects of a particular type.

console
Prints a message to the web browser's console.

for
A way to repeat a block of code when the number of iterations is known.

function
A named group of statements.

