

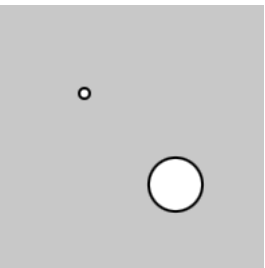
Reference > log()

# log()

Calculates the natural logarithm (the base-e logarithm) of a number.

`log()` expects the `n` parameter to be a value greater than 0 because the natural logarithm is defined that way.

## Examples



```
function setup() {  
  createCanvas(100, 100);  
  
  background(200);  
  
  // Top-left.  
  let d = log(50);  
  circle(33, 33, d);  
  
  // Bottom-right.  
  d = log(500000000);  
  circle(67, 67, d);  
  
  describe('Two white circles. The circle at the top-left is  
small. The circle at the bottom-right is about five times  
larger.');
```



```
function setup() {  
  createCanvas(100, 100);  
  
  background(200);  
  
  describe('A series of black dots that get higher slowly from  
left to right.');
```

```
function draw() {  
  // Invert the y-axis.  
  scale(1, -1);  
  translate(0, -100);  
  
  // Calculate coordinates.  
  let x = frameCount;  
  let y = 15 * log(x);  
  
  // Draw a point.  
  point(x, y);  
}
```



## Syntax

```
log(n)
```



## Parameters

`n`      Number: number greater than 0.

## Returns

Number: natural logarithm of `n`.

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## Related References

<b>abs</b> Calculates the absolute value of a number.	<b>ceil</b> Calculates the closest integer value that is greater than or equal to a number.	<b>constrain</b> Constrains a number between a minimum and maximum value.	<b>dist</b> Calculates the distance between two points.
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p5.js

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