

# line()

Draws a straight line between two points.

A line's default width is one pixel. The version of `line()` with four parameters draws the line in 2D. To color a line, use the `stroke()` function. To change its width, use the `strokeWeight()` function. A line can't be filled, so the `fill()` function won't affect the line's color.

The version of `line()` with six parameters allows the line to be drawn in 3D space. Doing so requires adding the `WEBGL` argument to `createCanvas()`.

## Examples

```
function setup() {
  createCanvas(100, 100);

  background(200);

  line(30, 20, 85, 75);

  describe(
    'A black line on a gray canvas running from top-center to bottom-right.'
  );
}
```

```
function setup() {
  createCanvas(100, 100);

  background(200);

  // Style the line.
  stroke('magenta');
  strokeWeight(5);

  line(30, 20, 85, 75);

  describe(
    'A thick, magenta line on a gray canvas running from top-center to bottom-right.'
  );
}
```

```
function setup() {
  createCanvas(100, 100);

  background(200);

  // Top.
  line(30, 20, 85, 20);

  // Right.
  stroke(126);
  line(85, 20, 85, 75);

  // Bottom.
  stroke(255);
  line(85, 75, 30, 75);

  describe(
    'Three lines drawn in grayscale on a gray canvas. They form the top, right, and bottom sides of a square.'
  );
}
```

```
function setup() {
  createCanvas(100, 100, WEBGL);

  background(200);

  line(-20, -30, 35, 25);

  describe(
    'A black line on a gray canvas running from top-center to bottom-right.'
  );
}
```

```
function setup() {
  createCanvas(100, 100, WEBGL);

  describe('A black line connecting two spheres. The scene spins slowly.');
```

```
function draw() {
  background(200);

  // Rotate around the y-axis.
  rotateY(frameCount * 0.01);

  // Draw a line.
  line(0, 0, 0, 30, 20, -10);

  // Draw the center sphere.
  sphere(10);

  // Translate to the second point.
  translate(30, 20, -10);

  // Draw the bottom-right sphere.
  sphere(10);
}
```

## Syntax

line(x1, y1, x2, y2)

line(x1, y1, z1, x2, y2, z2)

## Parameters

x1	Number: the x-coordinate of the first point.
y1	Number: the y-coordinate of the first point.
x2	Number: the x-coordinate of the second point.
y2	Number: the y-coordinate of the second point.
z1	Number: the z-coordinate of the first point.
z2	Number: the z-coordinate of the second point.

This page is generated from the comments in `src/core/shape/2d_primitives.js`. Please feel free to edit it and submit a pull request!

## Related References

<div>arc</div> <div>Draws an arc.</div>	<div>circle</div> <div>Draws a circle.</div>	<div>ellipse</div> <div>Draws an ellipse (oval).</div>	<div>line</div> <div>Draws a straight line between two points.</div>
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