

# plane()

Draws a plane.

A plane is a four-sided, flat shape with every angle measuring 90°. It's similar to a rectangle and offers advanced drawing features in WebGL mode.

The first parameter, `width`, is optional. If a `Number` is passed, as in `plane(20)`, it sets the plane's width and height. By default, `width` is 50.

The second parameter, `height`, is also optional. If a `Number` is passed, as in `plane(20, 30)`, it sets the plane's height. By default, `height` is set to the plane's `width`.

The third parameter, `detailX`, is also optional. If a `Number` is passed, as in `plane(20, 30, 5)` it sets the number of triangle subdivisions to use along the x-axis. All 3D shapes are made by connecting triangles to form their surfaces. By default, `detailX` is 1.

The fourth parameter, `detailY`, is also optional. If a `Number` is passed, as in `plane(20, 30, 5, 7)` it sets the number of triangle subdivisions to use along the y-axis. All 3D shapes are made by connecting triangles to form their surfaces. By default, `detailY` is 1.

Note: `plane()` can only be used in WebGL mode.

## Examples



// Click and drag the mouse to view the scene from different angles.

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

  describe('A white plane on a gray background.');
}

function draw() {
  background(200);

  // Enable orbiting with the mouse.
  orbitControl();

  // Draw the plane.
  plane();
}
```



// Click and drag the mouse to view the scene from different angles.

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

  describe('A white plane on a gray background.');
}

function draw() {
  background(200);

  // Enable orbiting with the mouse.
  orbitControl();

  // Draw the plane.
  // Set its width and height to 30.
  plane(30);
}
```



// Click and drag the mouse to view the scene from different angles.

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

  describe('A white plane on a gray background.');
}

function draw() {
  background(200);

  // Enable orbiting with the mouse.
  orbitControl();

  // Draw the plane.
  // Set its width to 30 and height to 50.
  plane(30, 50);
}
```

## Syntax

```
plane([width], [height], [detailX], [detailY])
```



## Parameters

<code>width</code>	Number: width of the plane.
<code>height</code>	Number: height of the plane.
<code>detailX</code>	Integer: number of triangle subdivisions along the x-axis.
<code>detailY</code>	Integer: number of triangle subdivisions along the y-axis.

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## Related References

`calculateBoundingBox`  
Calculates the position and size of the smallest box that contains the geometry.

`clearColors`  
Removes the geometry's internal colors.

`computeFaces`  
Computes the geometry's faces using its vertices.

`computeNormals`  
Calculates the normal vector for each vertex on the geometry.

