

# cylinder()

Draws a cylinder.

A cylinder is a 3D shape with triangular faces that connect a flat bottom to a flat top. Cylinders with few faces look like boxes. Cylinders with many faces have smooth surfaces.

The first parameter, `radius`, is optional. If a `Number` is passed, as in `cylinder(20)`, it sets the radius of the cylinder's base. By default, `radius` is 50.

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

The third parameter, `detailX`, is also optional. If a `Number` is passed, as in `cylinder(20, 30, 5)`, it sets the number of edges used to form the cylinder's top and bottom. Using more edges makes the top and bottom look more like circles. By default, `detailX` is 24.

The fourth parameter, `detailY`, is also optional. If a `Number` is passed, as in `cylinder(20, 30, 5, 2)`, it sets the number of triangle subdivisions to use along the y-axis, between cylinder's the top and bottom. All 3D shapes are made by connecting triangles to form their surfaces. By default, `detailY` is 1.

The fifth parameter, `bottomCap`, is also optional. If a `false` is passed, as in `cylinder(20, 30, 5, 2, false)` the cylinder's bottom won't be drawn. By default, `bottomCap` is `true`.

Note: `cylinder()` 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 cylinder on a gray background.');
}
```

// Draw the cylinder.

```
cylinder();
```

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

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

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

// Draw the cylinder.

```
// Set its radius and height to 30.
cylinder(30);
```

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

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

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

// Draw the cylinder.

```
// Set its radius to 30 and height to 50.
cylinder(30, 50);
```

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

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

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

// Draw the cylinder.

```
// Set its radius to 30 and height to 50.
// Set its detailX to 5.
cylinder(30, 50, 5);
```

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

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

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

// Draw the cylinder.

```
// Set its radius to 30 and height to 50.
// Set its detailX to 24 and detailY to 2.
cylinder(30, 50, 24, 2);
```

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

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

  describe('A white cylinder on a gray background. Its top is missing.');
}
```

// Draw the cylinder.

```
// Set its radius to 30 and height to 50.
// Set its detailX to 24 and detailY to 1.
// Don't draw its bottom.
cylinder(30, 50, 24, 1, false);
```

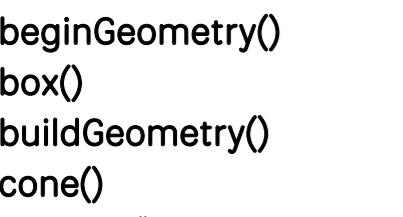
// Click and drag the mouse to view the scene from different angles.

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

  describe('A white cylinder on a gray background. Its top and bottom are missing.');
}
```

// Draw the cylinder.

```
// Set its radius to 30 and height to 50.
// Set its detailX to 24 and detailY to 1.
// Don't draw its bottom or top.
cylinder(30, 50, 24, 1, false, false);
```



3D Primitives

`calculateBoundingBox()`

`clearColors()`

`computeFaces()`

`computeNormals()`

`faces`

`flipU()`

`flipV()`

`normalize()`

`obj()`

`saveStl()`

`uvs`

`vertexNormals`

`vertices`

`beginGeometry()`

`box()`

`buildGeometry()`

`cone()`

`cylinder()`

`ellipsoid()`

`icosphere()`

`plane()`

`pyramid()`

`sphere()`

`torus()`

`torusKnot()`

`triangle()`

`triangleFan()`

`triangleStrip()`

`triangleTesselate()`

`triangleWeld()`

`triangleWeldDetail()`

`triangleWeldOffset()`

`triangleWeldSize()`

`triangleWeldWidth()`

`triangleWeldX()`

`triangleWeldY()`

`triangleWeldZ()`

`triangleWeldWidthX()`

`triangleWeldWidthY()`

`triangleWeldWidthZ()`

`triangleWeldXOffset()`

`triangleWeldYOffset()`

`triangleWeldZOffset()`

`triangleWeldXWidth()`

`triangleWeldYWidth()`

`triangleWeldZWidth()`

`triangleWeldXWidthX()`

`triangleWeldYWidthY()`

`triangleWeldZWidthZ()`

`triangleWeldXWidthXOffset()`

`triangleWeldYWidthYOffset()`

`triangleWeldZWidthZOffset()`

`triangleWeldXWidthXWidth()`

`triangleWeldYWidthYWidth()`

`triangleWeldZWidthZWidth()`

`triangleWeldXWidthXWidthX()`

`triangleWeldYWidthYWidthY()`

`triangleWeldZWidthZWidthZ()`

`triangleWeldXWidthXWidthXOffset()`

`triangleWeldYWidthYWidthYOffset()`

`triangleWeldZWidthZWidthZOffset()`

`triangleWeldXWidthXWidthXWidth()`

`triangleWeldYWidthYWidthYWidth()`

`triangleWeldZWidthZWidthZWidth()`

`triangleWeldXWidthXWidthXWidthX()`

`triangleWeldYWidthYWidthYWidthY()`

`triangleWeldZWidthZWidthZWidthZ()`

`triangleWeldXWidthXWidthXWidthXOffset()`

`triangleWeldYWidthYWidthYWidthYOffset()`

`triangleWeldZWidthZWidthZWidthZOffset()`

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`triangleWeldXWidthXWidthXWidthXWidthX()`

`triangleWeldYWidthYWidthYWidthYWidthYOffset()`

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`triangleWeldXWidthXWidthXWidthXWidthXWidthX()`

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