

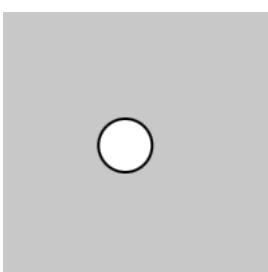
Reference > cos()

cos()

Calculates the cosine of an angle.

`cos()` is useful for many geometric tasks in creative coding. The values returned oscillate between -1 and 1 as the input angle increases. `cos()` calculates the cosine of an angle, using radians by default, or according to if `angleMode()` setting (RADIANS or DEGREES).

Examples



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

  describe('A white ball on a string oscillates left and right.');
```

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

  // Calculate the coordinates.
  let x = 30 * cos(frameCount * 0.05) + 50;
  let y = 50;

  // Draw the oscillator.
  line(50, y, x, y);
  circle(x, y, 20);
}
```



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

  background(200);

  describe('A series of black dots form a wave pattern.');
```

```
function draw() {
  // Calculate the coordinates.
  let x = frameCount;
  let y = 30 * cos(x * 0.1) + 50;

  // Draw the point.
  point(x, y);
}
```



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

  background(200);

  describe('A series of black dots form an infinity symbol.');
```

```
function draw() {
  // Calculate the coordinates.
  let x = 30 * cos(frameCount * 0.1) + 50;
  let y = 10 * sin(frameCount * 0.2) + 50;

  // Draw the point.
  point(x, y);
}
```

Syntax

```
cos(angle)
```

Parameters

angle Number: the angle, in radians by default, or according to if `angleMode()` setting (RADIANS or DEGREES).

Returns

Number: cosine of the angle.

This page is generated from the comments in [src/math/trigonometry.js](#) . Please feel free to edit it and submit a pull request!

Related References

acos Calculates the arc cosine of a number.	angleMode Changes the unit system used to measure angles.	asin Calculates the arc sine of a number.	atan Calculates the arc tangent of a number.
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