atan()

Calculates the arc tangent of a number.

`atan()` is the inverse of tan(). It expects input values in the range of -Infinity to Infinity. By default, `atan()` returns values in the range -π ÷ 2 (about -1.57) to π ÷ 2 (about 1.57). If the angleMode() is `DEGREES` then values are returned in the range -90 to 90.

Examples

```
1.047
1.732
1.047
```

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

  background(200);

  // Calculate tan() and atan() values.
  let a = PI / 3;
  let t = tan(a);
  let at = atan(t);

  // Display the values.
  text(`${round(a, 3)}`, 35, 25);
  text(`${round(t, 3)}`, 35, 50);
  text(`${round(at, 3)}`, 35, 75);

  describe('The numbers 1.047, 1.732, and 1.047 written on
separate rows.');
}
```

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

  background(200);

  // Calculate tan() and atan() values.
  let a = PI + PI / 3;
  let t = tan(a);
  let at = atan(t);

  // Display the values.
  text(`${round(a, 3)}`, 35, 25);
  text(`${round(t, 3)}`, 35, 50);
  text(`${round(at, 3)}`, 35, 75);

  describe('The numbers 4.189, 1.732, and 1.047 written on
separate rows.');
}
```

Syntax

```
atan(value)
```

Parameters

value	Number: value whose arc tangent is to be returned.

Returns

Number: arc tangent of the given value.

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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.