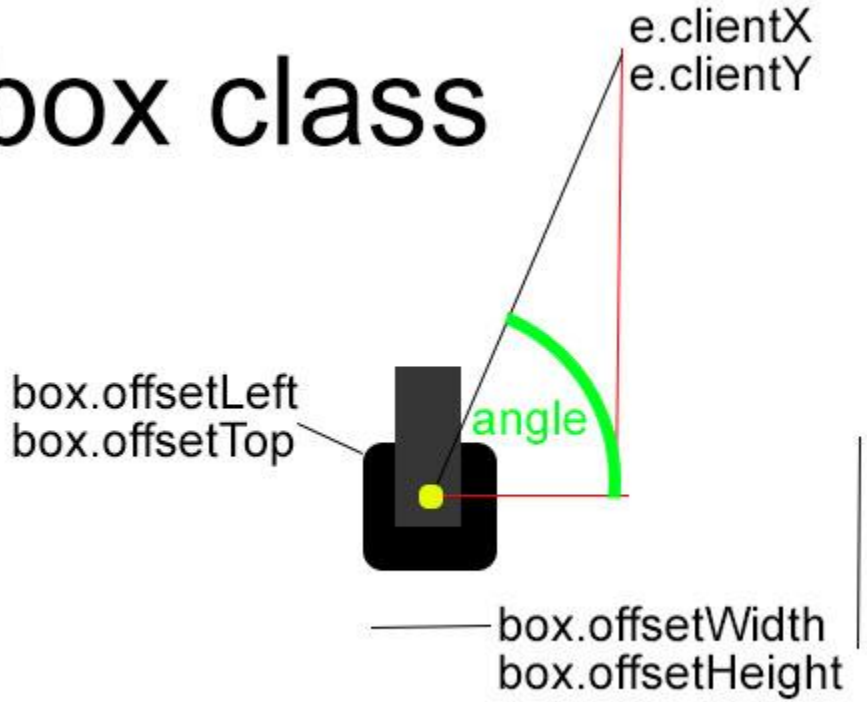
JavaScript Math

CSS transform

box class


e.clientX
e.clientY
box.offsetLeft
box.offsetTop
angle
box.offsetWidth
box.offsetHeight

Math.atan2()

The Math.atan2() function returns the arctangent of the quotient of its arguments.

```
function calcAngleDegrees(x, y) {
  return Math.atan2(y, x) * 180 / Math.PI;
}

console.log(calcAngleDegrees(5, 5)); //expected output: 45

console.log(calcAngleDegrees(10, 10));//expected output: 45

console.log(calcAngleDegrees(0, 10));//expected output: 90
```

https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Math/atan2

Math.sin()

The Math.sin() function returns the sine of a number.

```
function getCircleY(radians, radius) {
  return Math.sin(radians) * radius;
}
console.log(getCircleY(1, 10));// expected output: 8.414709848078965
console.log(getCircleY(2, 10));// expected output: 9.092974268256818
console.log(getCircleY(Math.PI, 10));// expected output: 1.2246467991473533e-15
```

https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Math/sin

Math.cos()

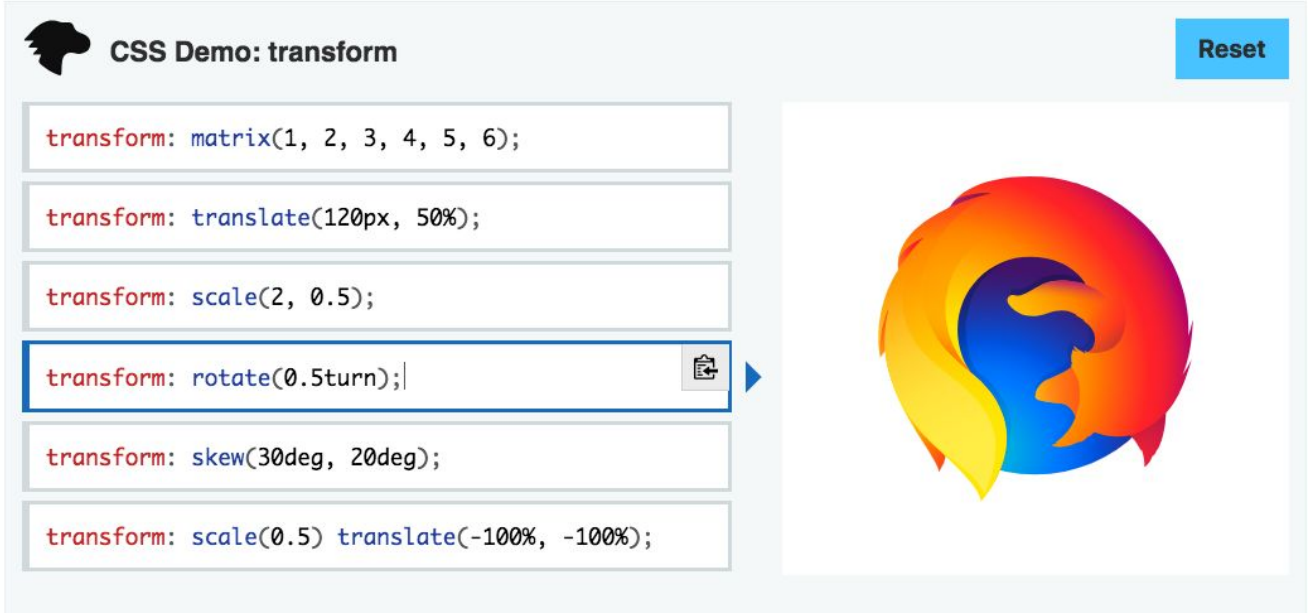
The Math.cos() static function returns the cosine of the specified angle, which must be specified in radians. This value is length adjacent length hypotenuse .

```
function getCircleX(radians, radius) {

  return Math.cos(radians) * radius;

}

console.log(getCircleX(1, 10));// expected output: 5.403023058681398

console.log(getCircleX(2, 10));// expected output: -4.161468365471424

console.log(getCircleX(Math.PI, 10));// expected output: -10
```

https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Math/cos

transform CSS

The `transform` CSS property lets you rotate, scale, skew, or translate a given element.
This is achieved by modifying the coordinate space of the CSS visual formatting model.



https://developer.mozilla.org/en-US/docs/Web/CSS/transform