

Transform





Topics

- 2D
 1. `translate()`
 2. `scale()`
 3. `rotate()`
 4. `skew()`
 5. `matrix()`
- 3D
 1. `rotateX()`
 2. `rotateY()`
 3. `rotateZ()`



Types of Transforms in CSS

2D Transform: Moves and changes the shape of things on a flat surface.

3D Transform: Moves and changes things like they're in a 3D world, adding depth and making them look closer or farther away.



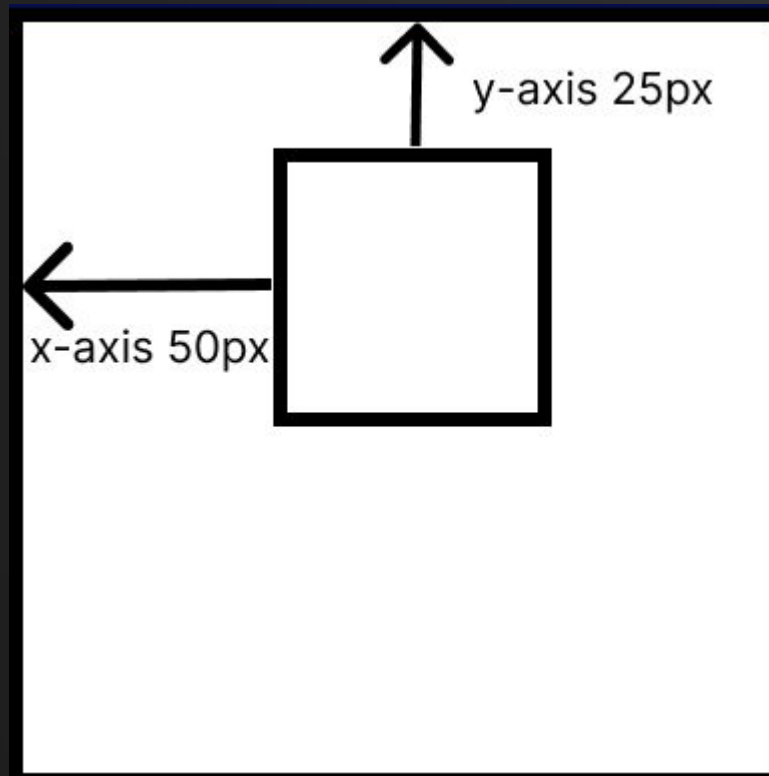
2D transform

1. Translate

Syntax:

```
translate(x, y)
```

Browser output:





1. Scale

Syntax:

```
transform: scale(x, y);
```




Scale example

1) Scale an element to 120% of its original size in the horizontal direction and 80% of its original size in the vertical direction.

before



after





Scale example

3) Increase the height and decrease the width of elements using `scaleY()` and `scaleX()`

before



after





2D transform

2. rotate

Syntax:

```
transform: rotate(angle);
```




Rotate example

1) Rotate an element 45 degrees clockwise:





Rotate example

2) Rotate an element 45 degrees anticlockwise





2D transform

3. skew

Syntax:

```
transform: skew(x-angle, y-angle);
```



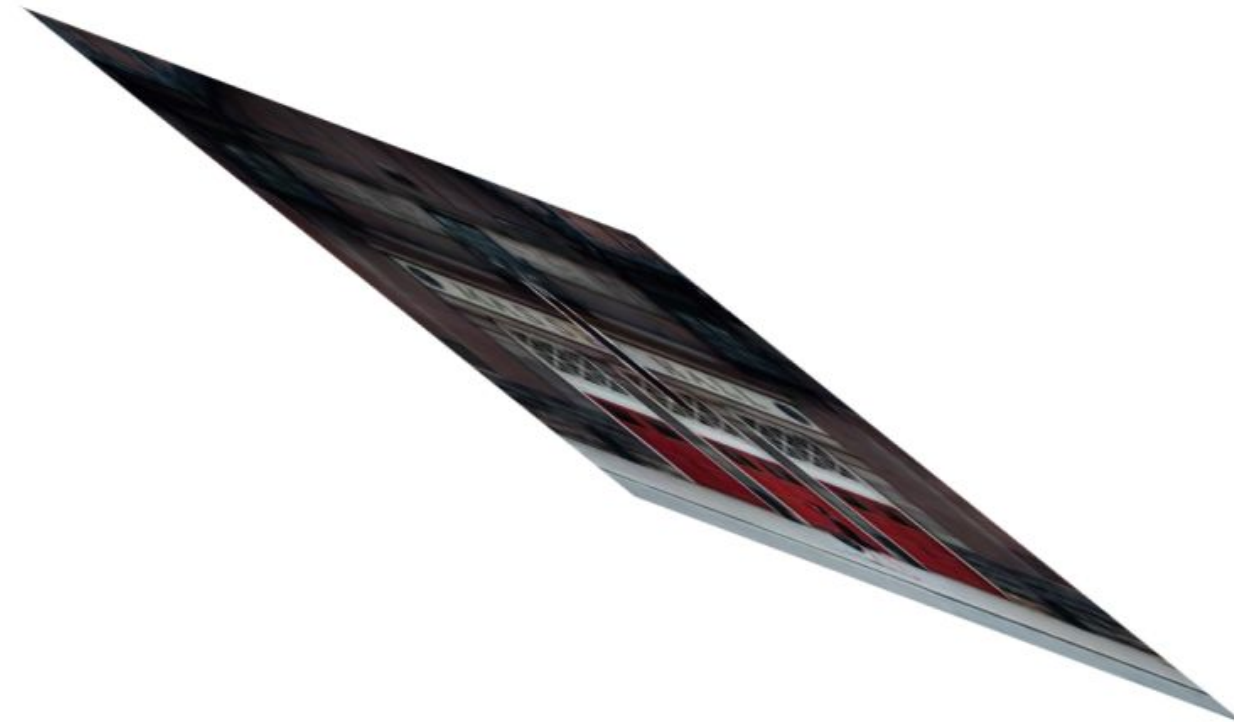

Skew example

1) skew an element 45 degrees in the X direction and 25 degrees in the Y direction.

Before



After

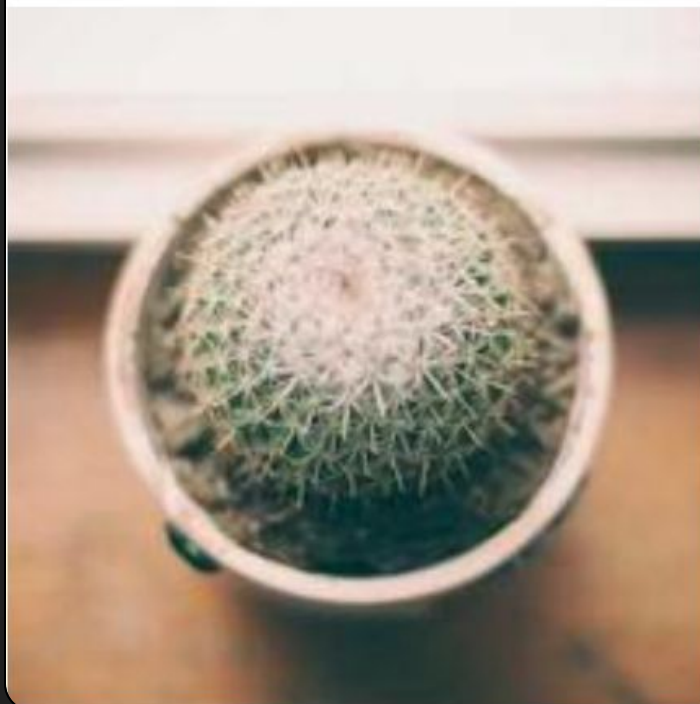




Skew example

2) Skew an element 30 degrees in the X direction using `skewX()`

Before



After





Skew example

3) Skew an element 45 degrees in the Y direction using `skewY()`:

Before



After





2D transform

4. Matrix

Syntax:

```
transform: matrix(a, b, c, d, tx, ty);  
// matrix(scaleX(), skewY(), skewX(), scaleY(), translateX(), translateY())
```




Matrix example

1) Scale the element in horizontal and vertical directions:

Before



After





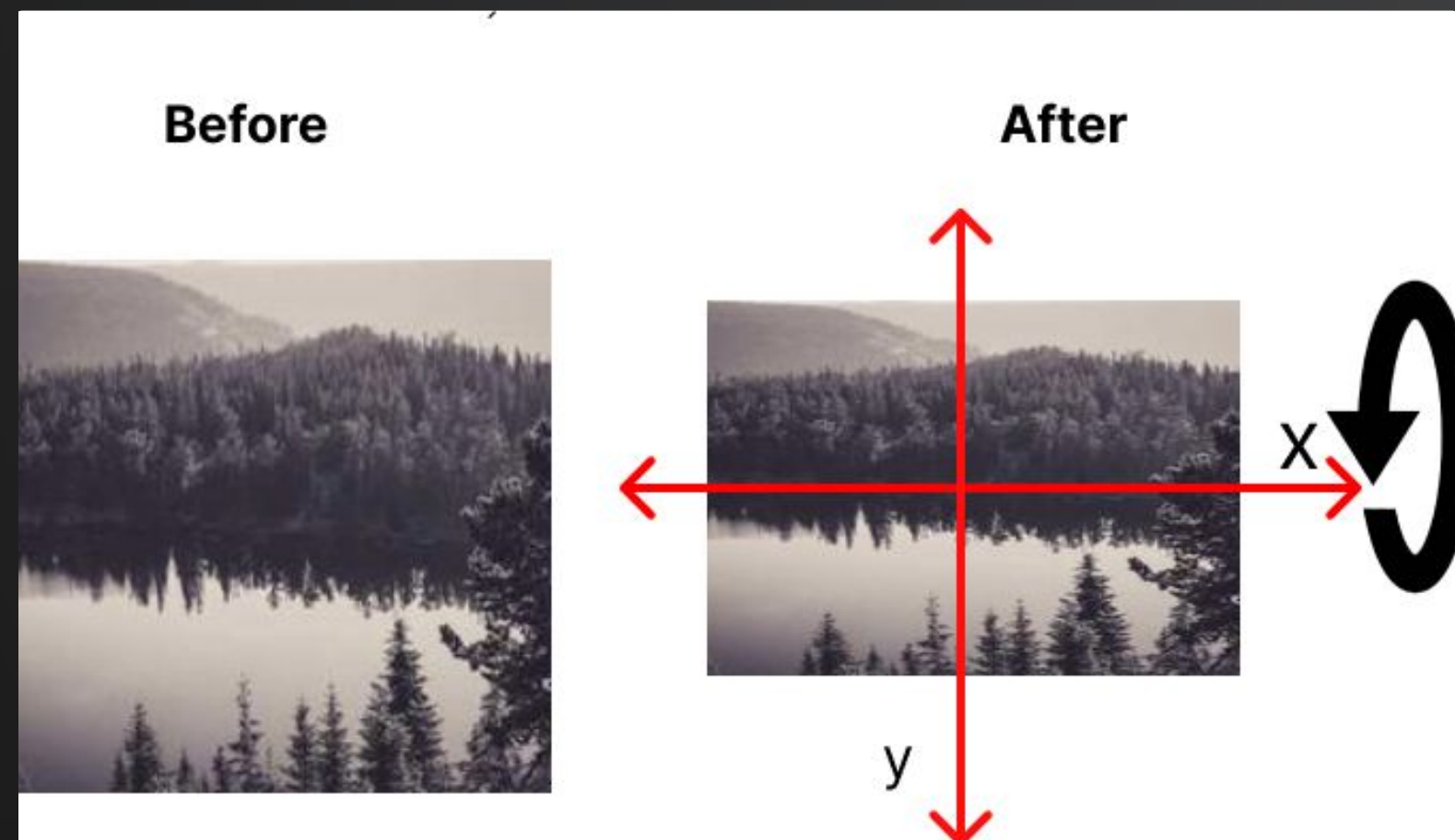
3D transform

1. rotateX()

Syntax:

```
transform: rotateX(40deg);
```

Browser output:





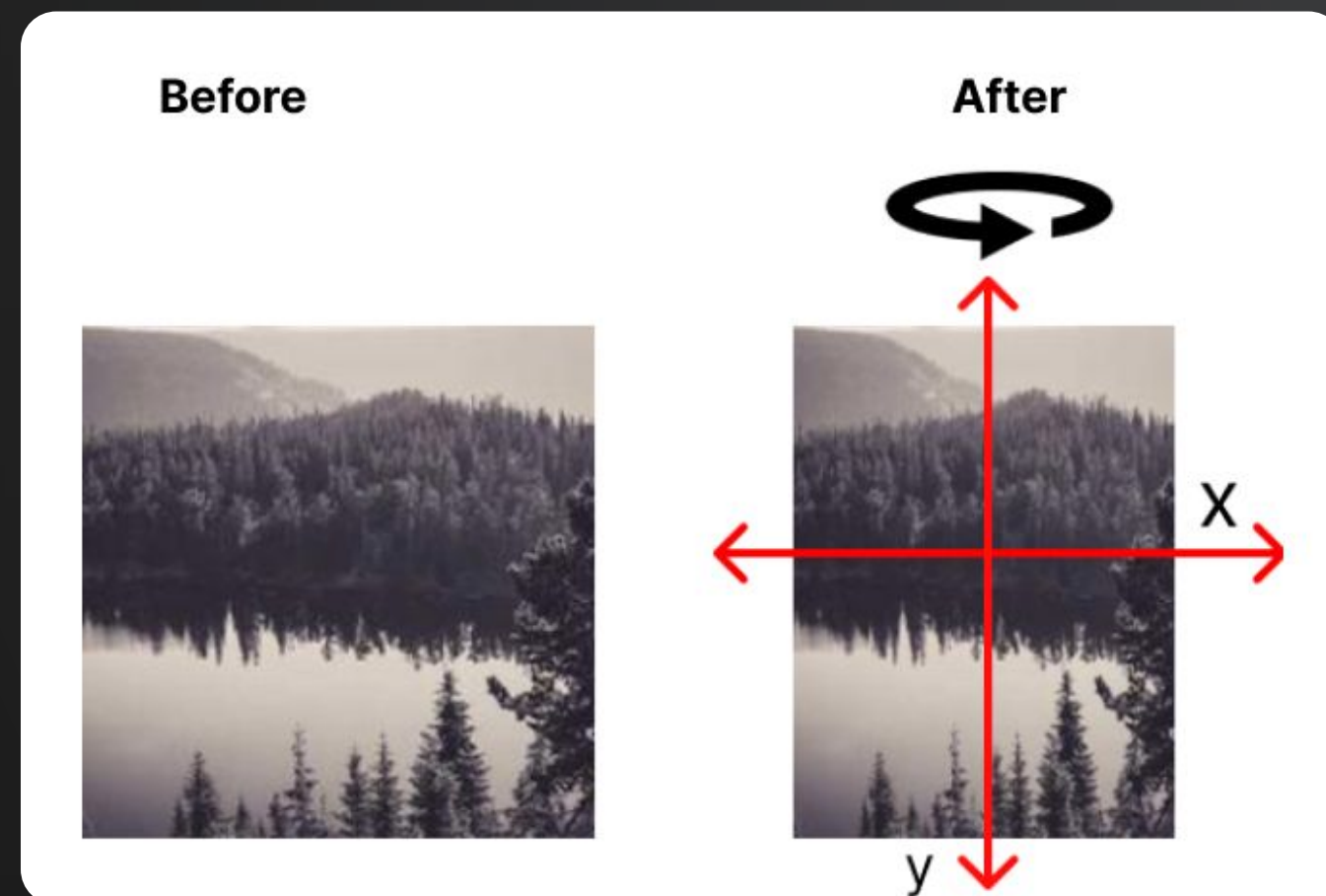
3D transform

2. rotateY()

Syntax:

```
transform: rotateY(40deg);
```

Browser output:





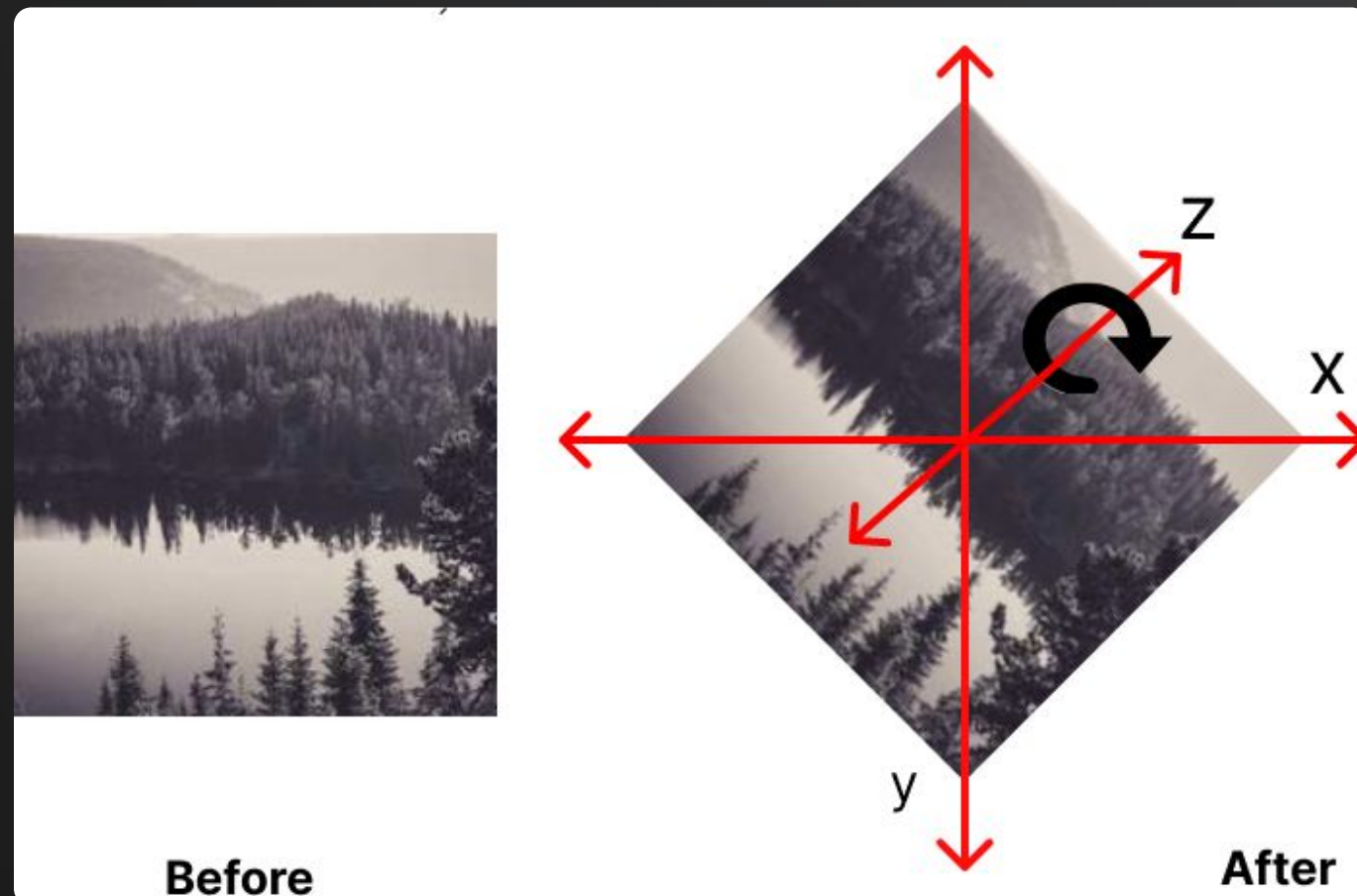
3D transform

3. rotateZ()

Syntax:

```
transform: rotateZ(40deg);
```

Browser output:





▶ **THANK YOU** ◀