

# CSS Transforms Cheat Sheet

## Properties

### transform

translate(1px, 5px), translateX(1px), translateY(5px)  
scale(1.2, 1.5), scaleX(1.2), scaleY(1.5)  
rotate(5deg) **positive = clockwise**  
rotate(5deg, 10px, 5px) **move x, y, then rotate**  
skew(10deg, 5deg), skewX(10deg), skewY(5deg)  
matrix(1, 0, 0, .5, ...) **3x3 = 9 numbers**

translate3d(1px, 5px, 2px)  
translateZ(5px) **positive = closer**  
scale3d(1.2, .5, 2), scaleZ(2)  
rotate3d(1, .5, .2, 10deg) **first 3 numbers define the direction of the rotation axis**  
rotateX(10deg), rotateY(5deg), rotateZ(2deg)  
perspective(800px) **same as property, but not inherited**  
matrix3d(1, 0, .3, ...) **4x4 = 16 numbers**

e.g. `transform: translateX(-5px) rotate(10deg);`

### perspective-origin, transform-origin

left, center (**default**), right, top, bottom, %, px

e.g. `transform-origin: left top 10px;` **3rd value is Z origin**

### transform-style

flat (**default**), preserve-3d

### perspective

e.g. `perspective: 800px;` **smaller = closer = more distorted**

### backface-visibility

visible (**default**), hidden

## Browser Support

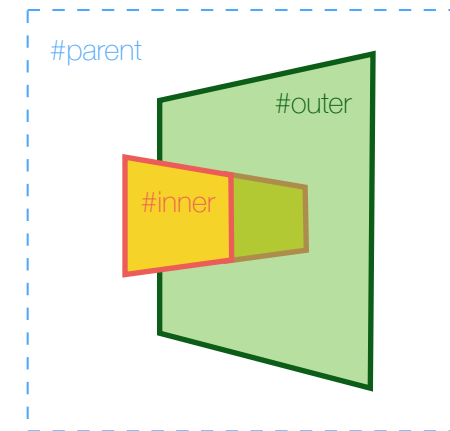
	IE	Firefox	Chrome	Safari	Opera			
2D	<div><div>&gt;9</div></div>							
3D	<div><div>&gt;10</div></div>					IE 10 & 11 don't support preserve-3d		
	Mobile Safari	Opera Mini	Android	Blackberry	Opera Mobile	Chrome for Android	Firefox for Android	IE Mobile
2D	<div></div>							
3D	<div><div>&gt;22</div></div>							

## How To 3D

```
#parent {
  perspective: 800px;
}

#outer {
  transform: rotateY(-40deg);
  transform-style: preserve-3d;
}

#inner {
  transform: rotateY(90deg);
}
```



## Tips

- order of operation matters
- IE doesn't support preserve-3d

## Prefixes

-webkit	Safari, Chrome
-moz	Firefox
-o	Opera
-ms	IE

e.g. `-webkit-transform: scale(1.1)`