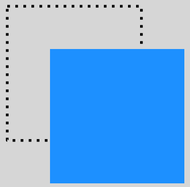
CSS challenge #2

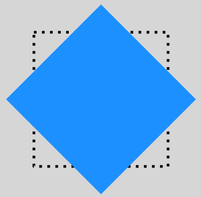
TRANSFORM & TRANSITION INTRO

Individual transform properties

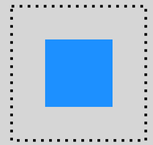
`translate: 2em 2em;`



`rotate: 45deg;`

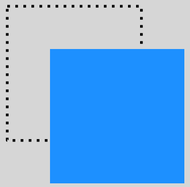


`scale: .5;`



Individual transform properties

translate: 2em 2em;



min is omhoog

X-as Y-as

```
translate: 2em -2em;
```

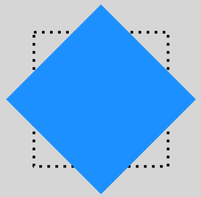
X-as

```
translate: 2em;
```

X-as Y-as Z-as

```
translate: 2em 2em 2em;
```

rotate: 45deg;



Z-as

```
rotate: 90deg;
```

X-as

```
rotate: x 120deg;
```

Y-as

```
rotate: y 1turn;
```

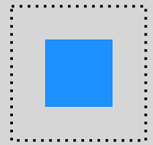
1 draai

Z-as

```
rotate: z -90deg;
```

tegen de klok in

scale: .5;



2x zo groot

X&Y-as

```
scale: 2;
```

helemaal weg

```
scale: 0;
```

X-as Y-as

```
scale: .5 2;
```

```
scale: 50% 200%;
```

percentages kunnen ook

Transition

```
transition-duration: 1s;
transition-delay: 1s;
transition-timing-function: ease-in;
```

custom easing

Kan samen ook met de shorthand:

```
transition: 1s;
transition: 1s 1s ease-in;
```

delay

Alleen van toepassing voor color:

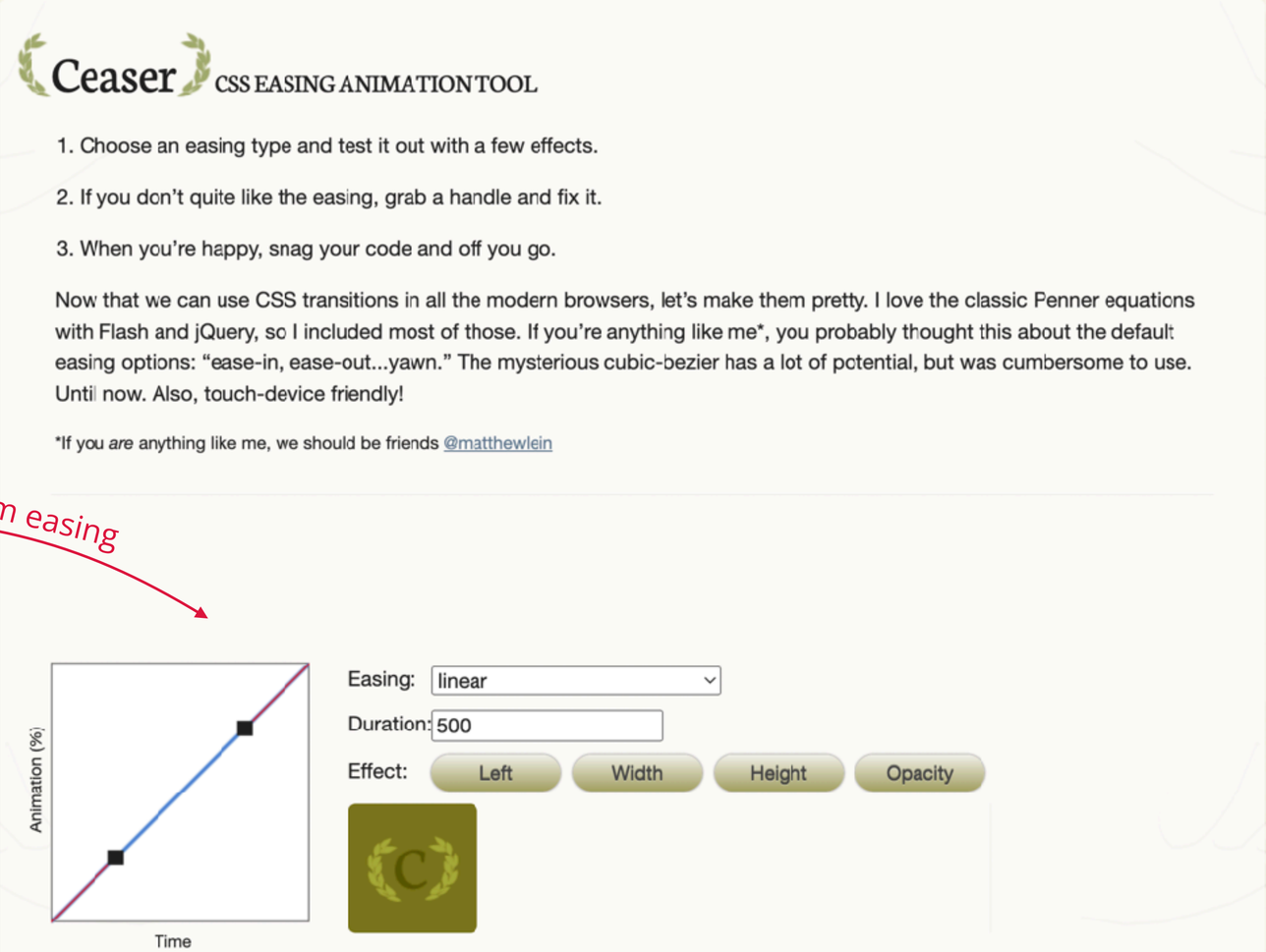
```
transition-property: color;
```

Als onderdeel van de shorthand:

```
transition: color 1s 1s ease-in;
```

Verschillende transities:

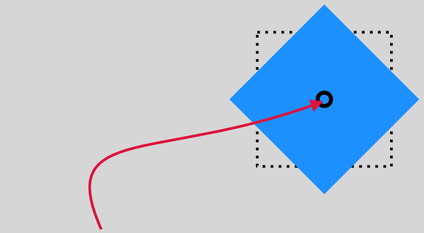
```
transition:
  color 1s .5s ease-in,
  border-radius 2s 1s ease-in;
```



https://matthewlein.com/tools/ceaser

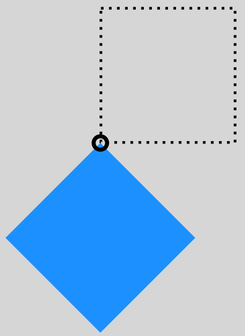
Transform-origin

```
rotate: 45deg;
```



standaard draait een element om zijn middelpunt (naveltje)

```
rotate: 135deg;
```

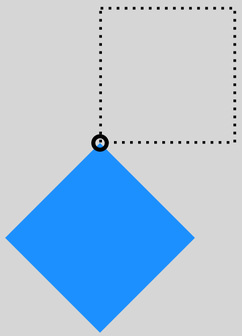


X-as Y-as

```
transform-origin:left bottom
```

met keywords om de hoek linkson der draaien

```
rotate: 135deg;
```



X-as Y-as

```
transform-origin:0% 5em
```

kan ook met percentages en maten

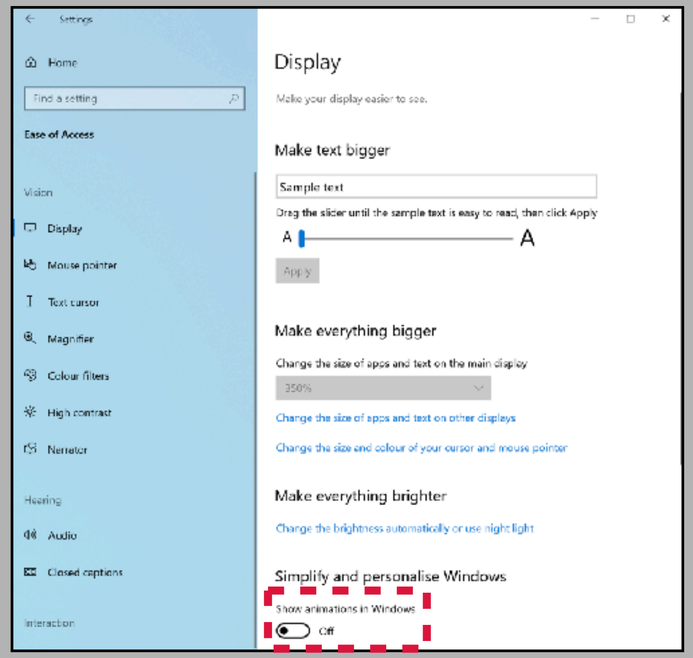
Prefers reduced motion

```
@media (prefers-reduced-motion:no-preference) {
  div {
    transition: 1s;
  }
}
```

alleen een transition als de gebruiker heeft aangegeven dat dat geen probleem is

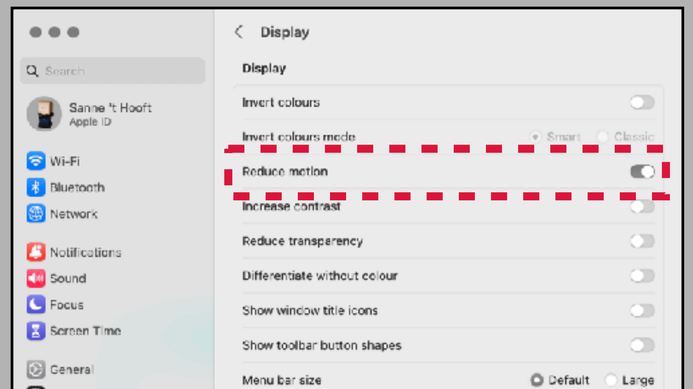
Show animations - Windows

Settings → Ease of Access → Display



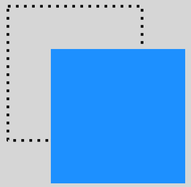
Reduce motion

System preferences → Accessibility → Display

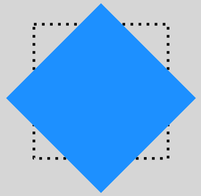


Transform functions

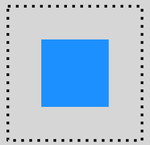
`transform: translate(2em, 2em);`



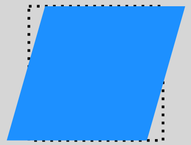
`transform: rotate(45deg);`



`transform: scale(.5);`

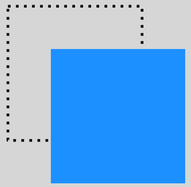


`transform: skew(10deg, 0deg);`



Transform functions

transform: translate(2em, 2em);



percentage van eigen afmeting

X-as Y-as

```
translate(2em, -2em);
```

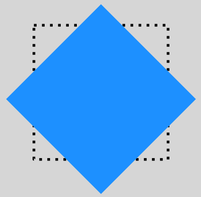
X-as

```
translate(2em);

translate(50%, 3rem);

translateY(100%);
translateX(100%);
translateZ(100%);
```

transform: rotate(45deg);



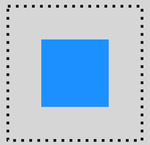
Z-as

```
rotate(45deg);

rotateX(.5turn);
rotateY(0);
rotateZ(45deg);

rotate3D(1,1,1,45deg);
```

transform: scale(.5);



X&Y-as

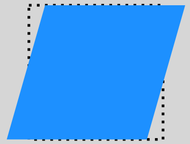
```
scale(1);
```

X-as Y-as

```
scale(.5, 2);

scale(50%, 200%);
```

transform: skew(10deg, 0deg);



X-as Y-as

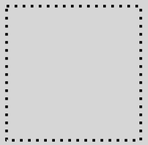
```
skew(10deg, 20deg);
```

X-as

```
skew(15deg);

skewX(.25turn);
skewY(-10deg);
```

Combi (de volgorde doet ertoe)



```
transform:
  translateY(-125%)
  rotate(90deg);
```

eerst omhoog

dan draaien

```
transform:
  rotate(90deg)
  translateY(-125%);
```

eerst draaien (het assenstelsel draait mee)

dan ‘omhoog’ (in het gedraaide assenstelsel)

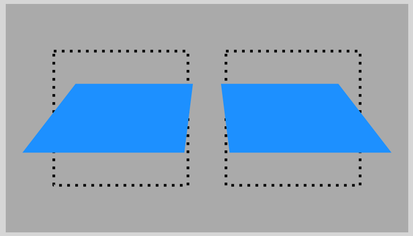
3D

Eigen perspectief

de div heeft zijn eigen verdwijnpunt

```
div {
  transform:
    perspective(15em)
    rotateX(45deg);
}
```

Gedeeld perspectief

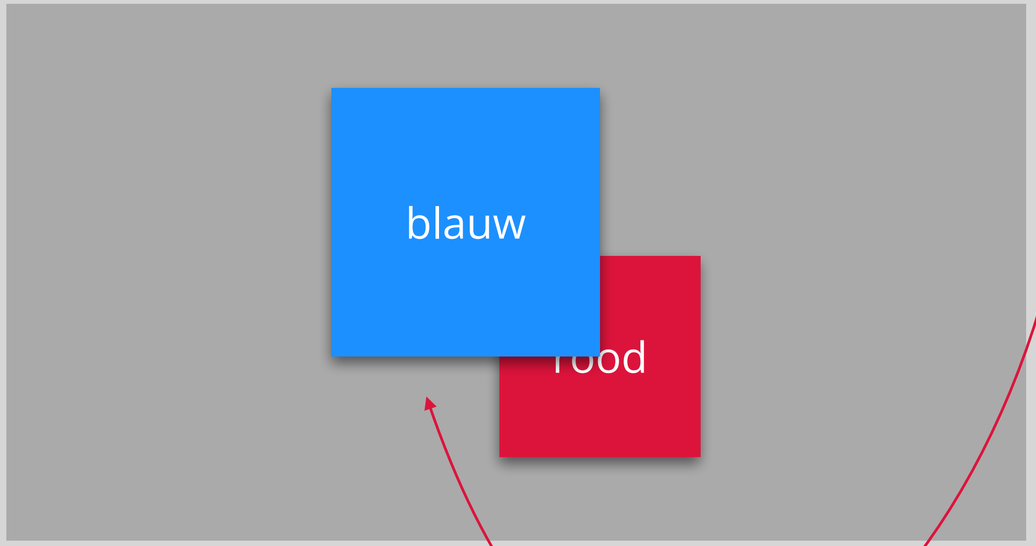


de divs delen hetzelfde verdwijnpunt van de section

```
section {
  perspective:15em;
}

div {
  transform:
    rotateX(45deg);
}
```

preserve-3D



De section is een ‘echte’ 3D-container

Daardoor ligt de blauwe div boven de rode div (ondanks dat de blauwe div eerder in de HTML staat

Html

```
<section>
  <div>blauw</div>
  <div>rood</div>
</section>
```

CSS

```
section {
  perspective(15em);
  transform-style:preserve-3D;
}

div:nth-of-type(1) {
  background-color:DodgerBlue;
  transform:translateZ(4em);
}

div:nth-of-type(2) {
  background-color:Crimson;
  transform:translateZ(-4em);
}
```

naar voren

naar achteren

Voor **zwarte** piste

INTRO & TRANSITION TRANSFORM

CSS challenge #2