CSS challenge

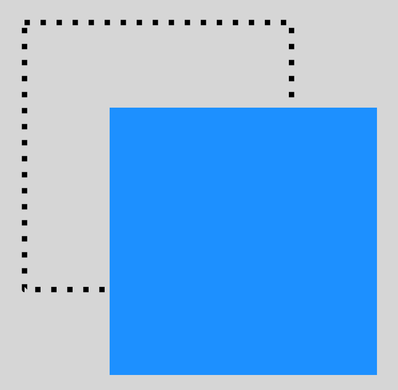
FDND 24-25

#2 TRANSFORM & TRANSITION

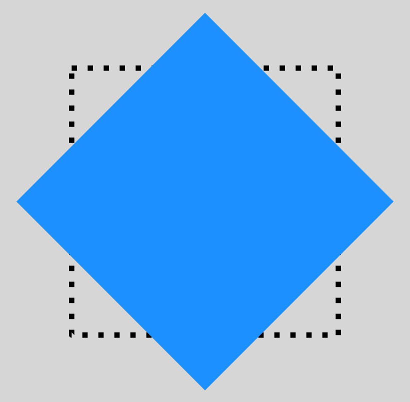
intro

Individual transform properties

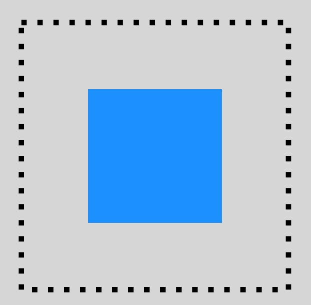
`translate: 2em 2em;`



`rotate: 45deg;`

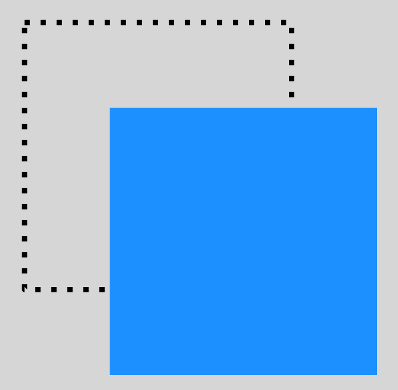


`scale: .5;`



Individual transform properties

`translate: 2em 2em;`



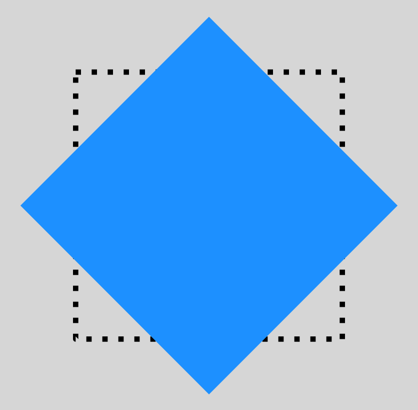
min is omhoog

X-as Y-as
```
translate: 2em -2em;
```

X-as
```
translate: 2em;
```

X-as Y-as Z-as
```
translate: 2em 2em 2em;
```

`rotate: 45deg;`



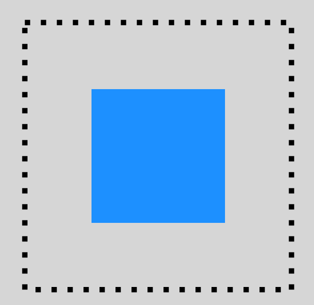
Z-as
```
rotate: 90deg;
```

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:

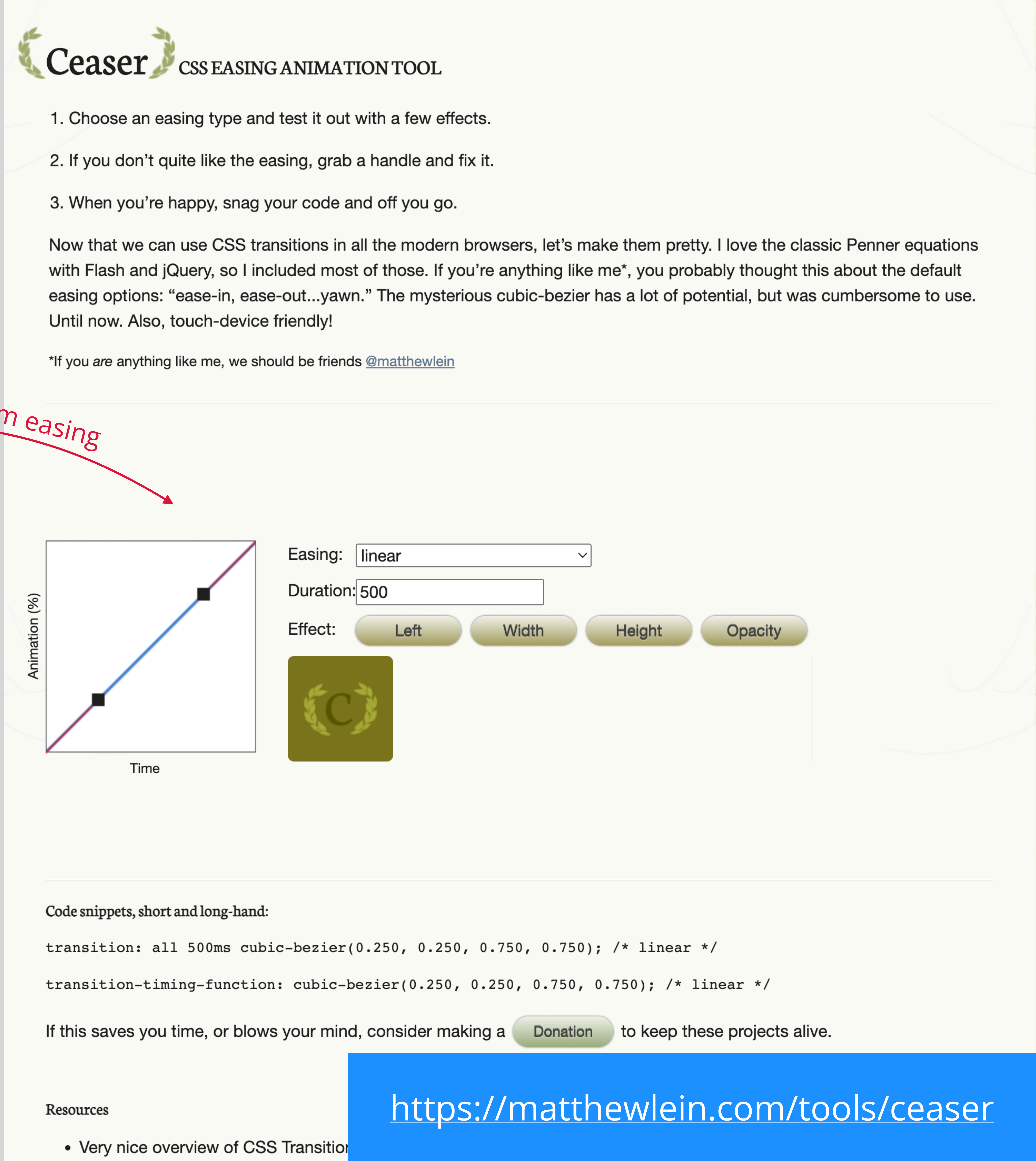
```
transition-property: color;
```

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;
```



Ceaser CSS EASING ANIMATION TOOL

1. Choose an easing type and test it out with a few effects.

2. If you don't quite like the easing, grab a handle and fix it.

3. When you're happy, snag your code and off you go.

Now that we can use CSS transitions in all the modern browsers, let's make them pretty. I love the classic Penner equations with Flash and jQuery, so I included most of those. If you're anything like me*, you probably thought this about the default easing options: "ease-in, ease-out...yawn." The mysterious cubic-bezier has a lot of potential, but was cumbersome to use. Until now. Also, touch-device friendly!

*If you *are* anything like me, we should be friends @matthewlein

Easing: linear

Duration: 500

Effect:

Code snippets, short and long-hand:

```
transition: all 500ms cubic-bezier(0.250, 0.250, 0.750, 0.750); /* linear */

transition-timing-function: cubic-bezier(0.250, 0.250, 0.750, 0.750); /* linear */
```

If this saves you time, or blows your mind, consider making a Donation to keep these projects alive.

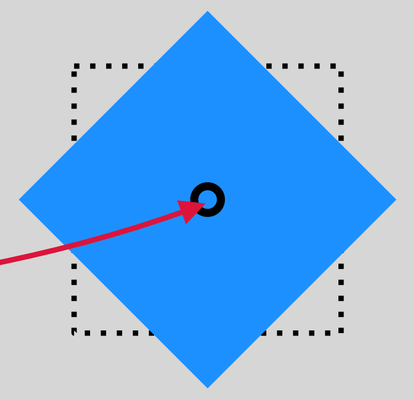
Resources

- Very nice overview of CSS Transition

https://matthewlein.com/tools/ceaser

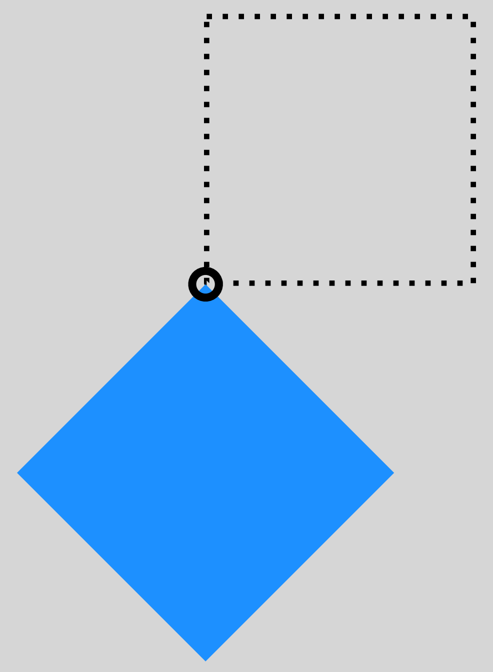
Transform-origin

```
rotate: 45deg;
```



standaard draait een element om zijn middelpunt (naveltje)

```
rotate: 135deg;
```

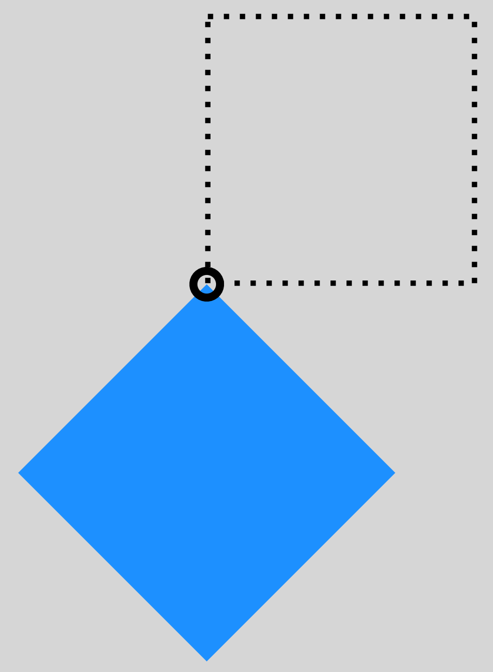


X-as Y-as

```
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

Voor **rode** piste

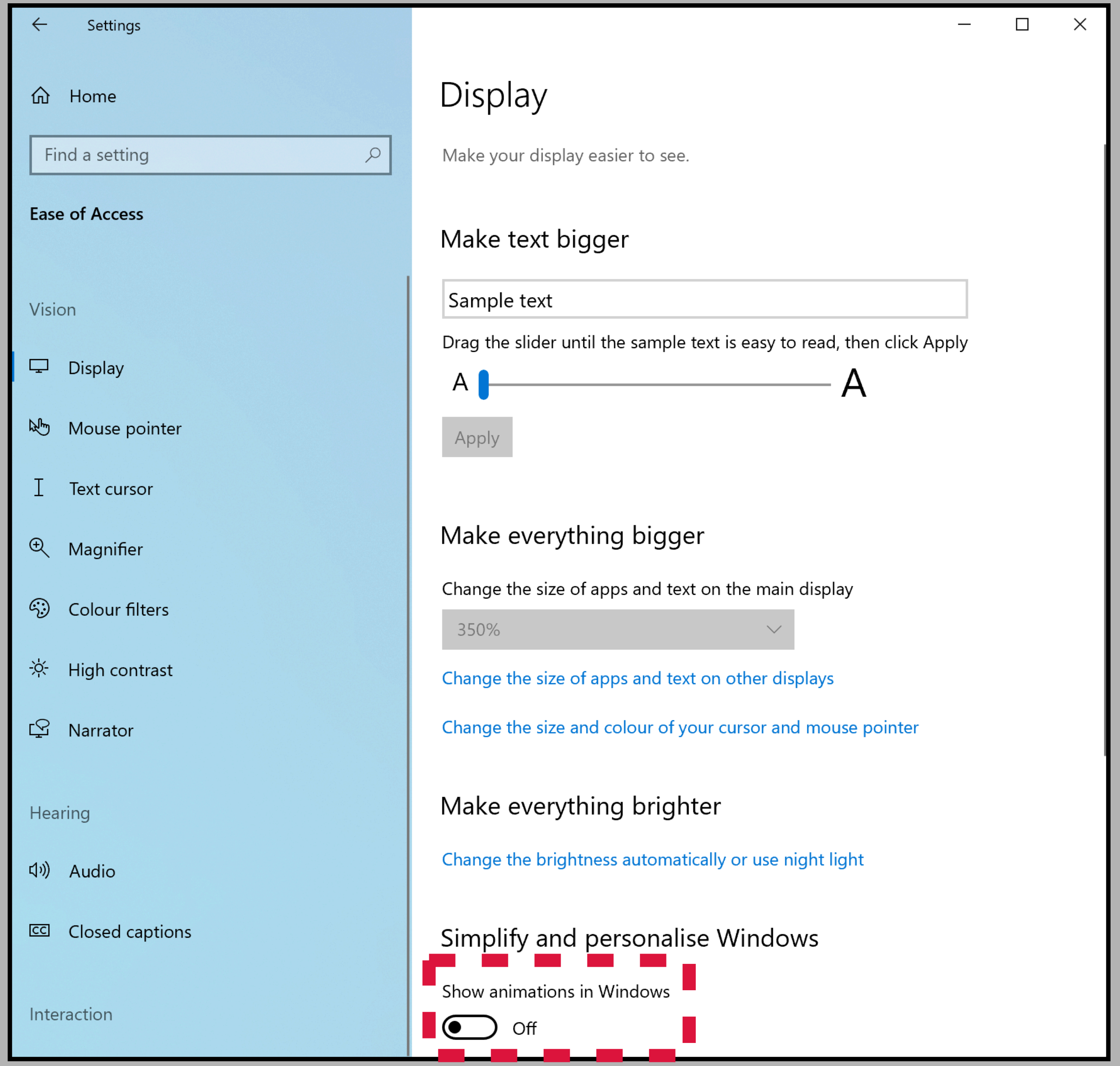
Prefers reduced motion

```
@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



Settings

Home

Find a setting

Ease of Access

Vision

Display

Mouse pointer

Text cursor

Magnifier

Colour filters

High contrast

Narrator

Hearing

Audio

Closed captions

Interaction

Display

Make your display easier to see.

Make text bigger

Sample text

Drag the slider until the sample text is easy to read, then click Apply

A A

Apply

Make everything bigger

Change the size of apps and text on the main display

350%

Change the size of apps and text on other displays

Change the size and colour of your cursor and mouse pointer

Make everything brighter

Change the brightness automatically or use night light

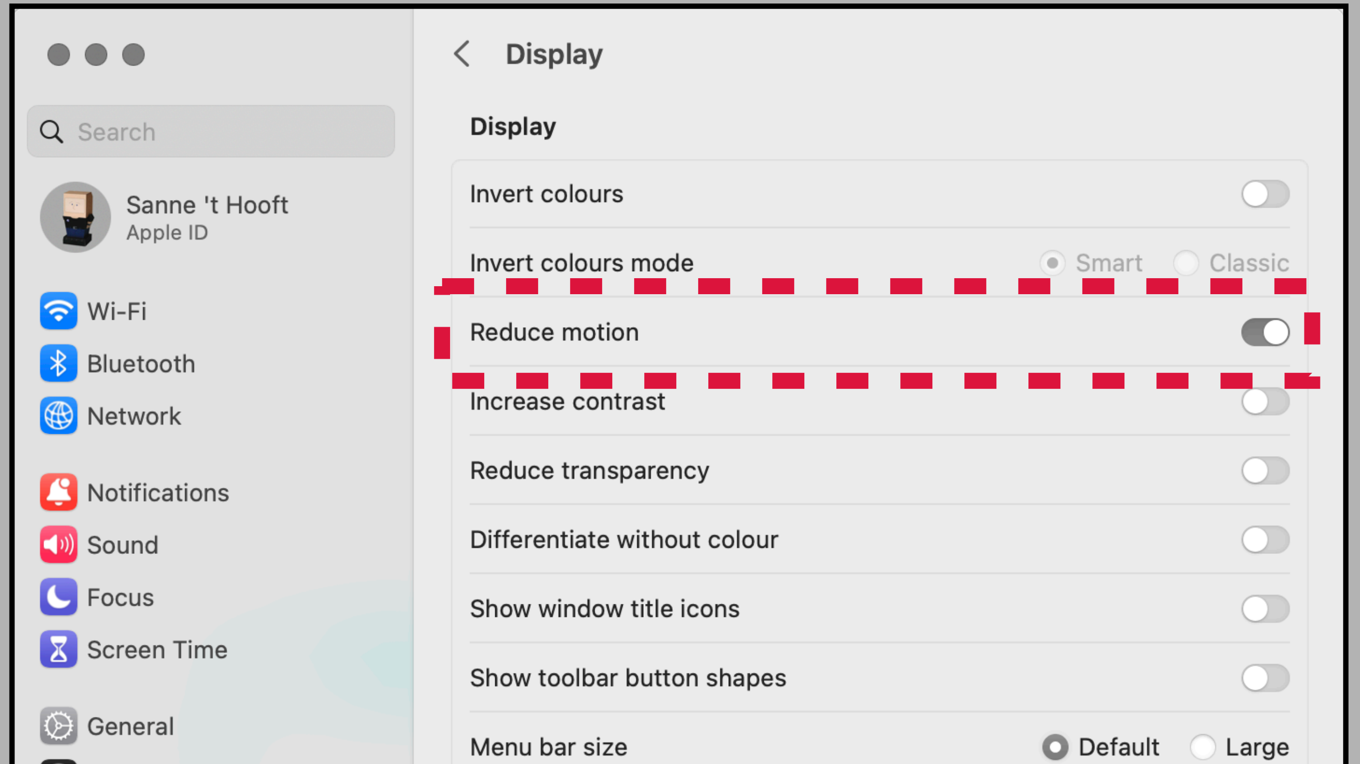
Simplify and personalise Windows

Show animations in Windows

Off

Reduce motion

System preferences → Accessibility → Display



Search

Sanne 't Hooft
Apple ID

Wi-Fi

Bluetooth

Network

Notifications

Sound

Focus

Screen Time

General

Display

Display

Invert colours

Invert colours mode [✓ Smart] Classic

Reduce motion

Increase contrast

Reduce transparency

Differentiate without colour

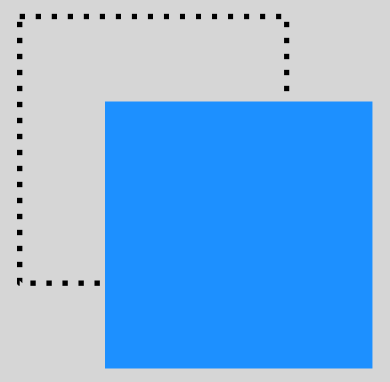
Show window title icons

Show toolbar button shapes

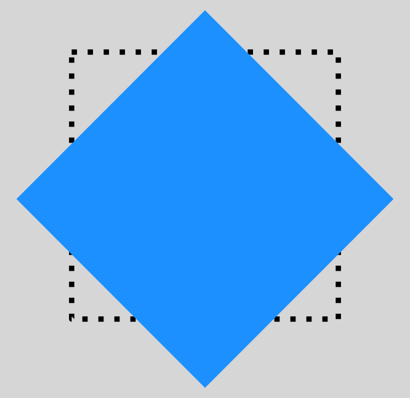
Menu bar size [✓ Default] Large

Transform functions

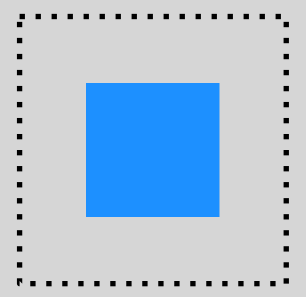
`transform: translate(2em, 2em);`



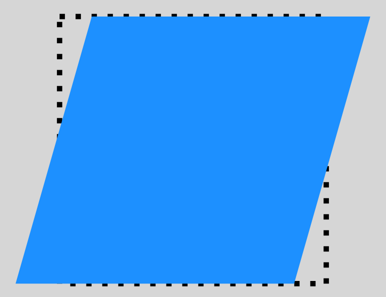
`transform: rotate(45deg);`



`transform: scale(.5);`

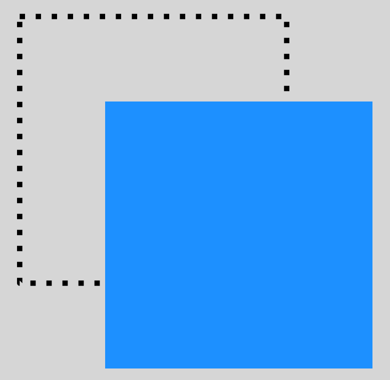


`transform: skew(10deg, 0deg);`



Transform functions

transform: translate(2em, 2em);



percentage van eigen afmeting

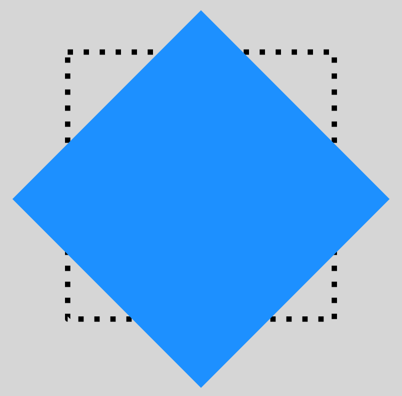
```
         X-as      Y-as
translate(2em, -2em);

                X-as
   translate(2em);

translate(50%, 3rem);

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

transform: rotate(45deg);

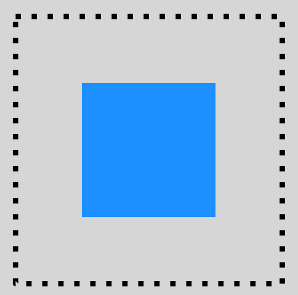


```
   Z-as
rotate(45deg);

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

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

transform: scale(.5);

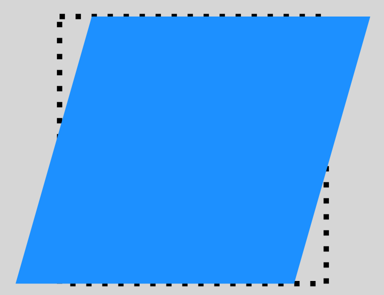


```
      X&Y-as
scale(1);

     X-as  Y-as
scale(.5, 2);

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

transform: skew(10deg, 0deg);

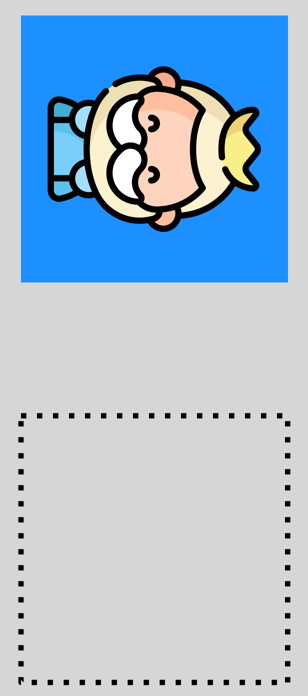


```
     X-as       Y-as
skew(10deg, 20deg);

         X-as
   skew(15deg);

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

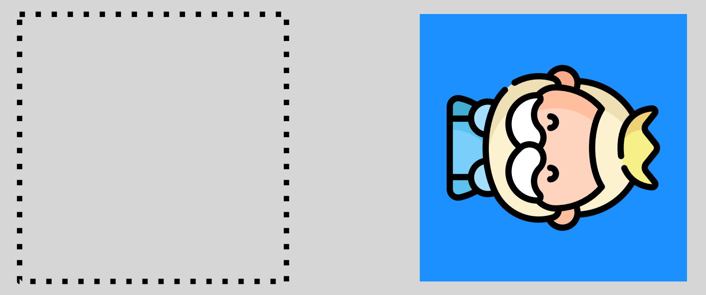
Combi (de volgorde doet ertoe)



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

eerst omhoog

dan draaien



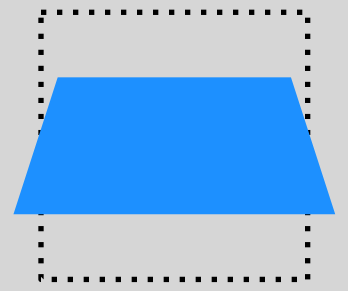
eerst draaien (het assenstelsel draait mee)

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

dan 'omhoog' (in het gedraaide assenstelsel)

3D

Eigen perspectief

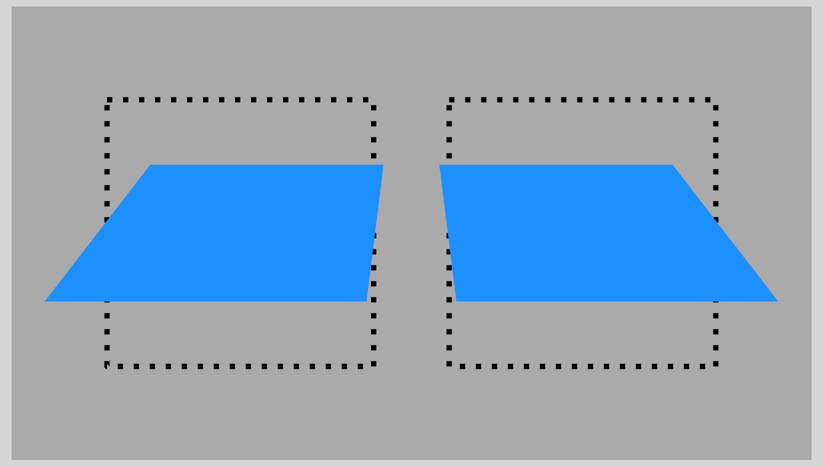


de div heeft zijn eigen verdwijnpunt

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

Voor **rode** piste

Gedeeld perspectief



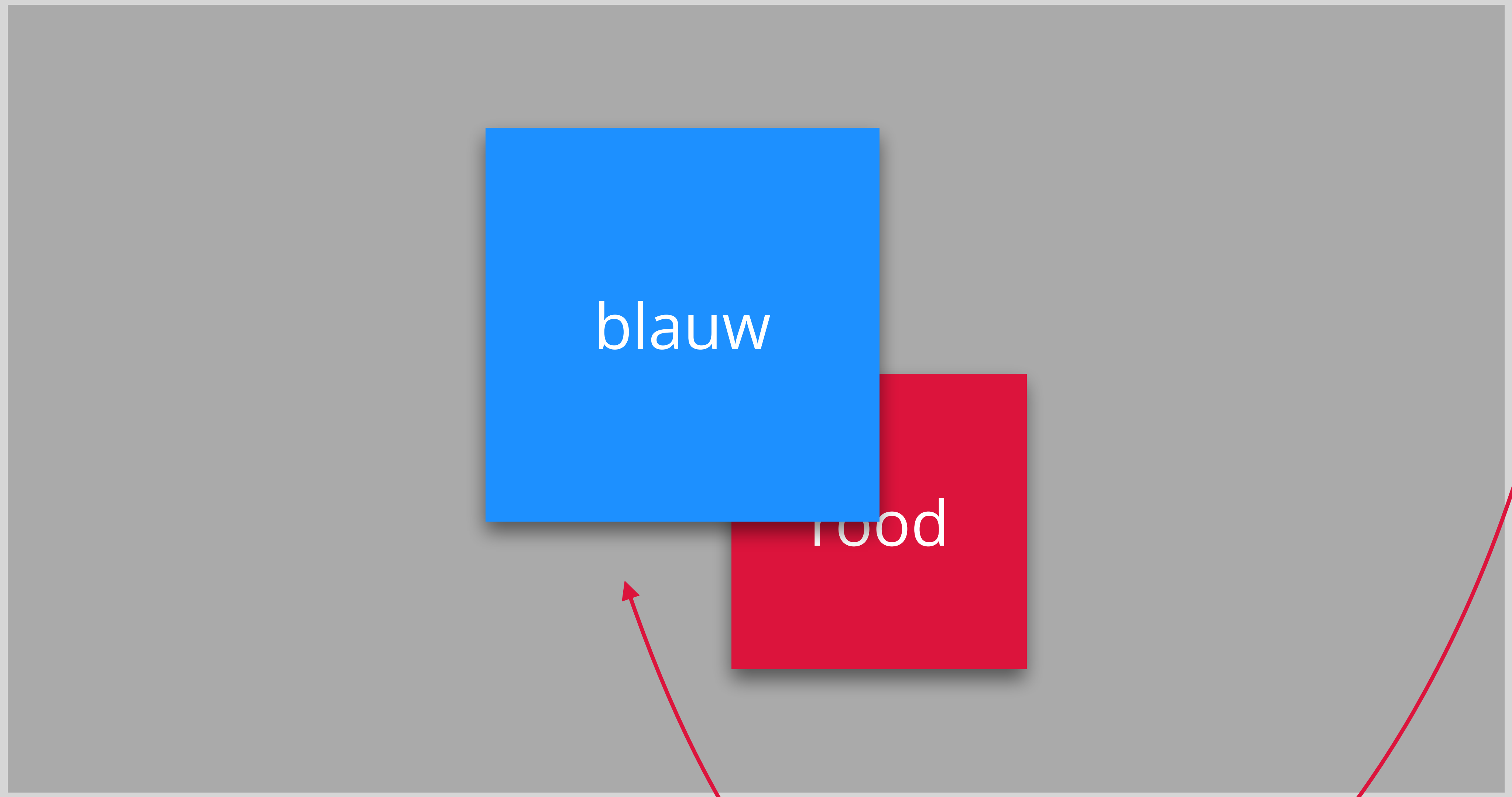
de divs delen hetzelfde verdwijnpunt van de section

```
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

Voor **zwarte** piste

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

intro

#2 TRANSFORM & TRANSITION

CSS challenge

FDND 24-25