

CSS

CSS Size Units



CSS Size Units – warm up group read

- Individually, read the following article:
<https://t.ly/Z53rI>
- Note 2-3 points from the article that were new or interesting to you.
- Share these with your group members.
- Agree on one interesting point you will share with the class.

CSS Size Units

- In CSS, sizes can be defined in absolute or relative terms.
- Absolute sizes like PX define sizes in terms of absolute units.
- Relative size units like EM and REM define sizes relative to another element's size (i.e. a parent element or the root element).

```
body {  
  min-height: 100vh;  
  font-size: 1rem;  
  max-width: 900px;  
}
```

Pixels and Absolute Size Units

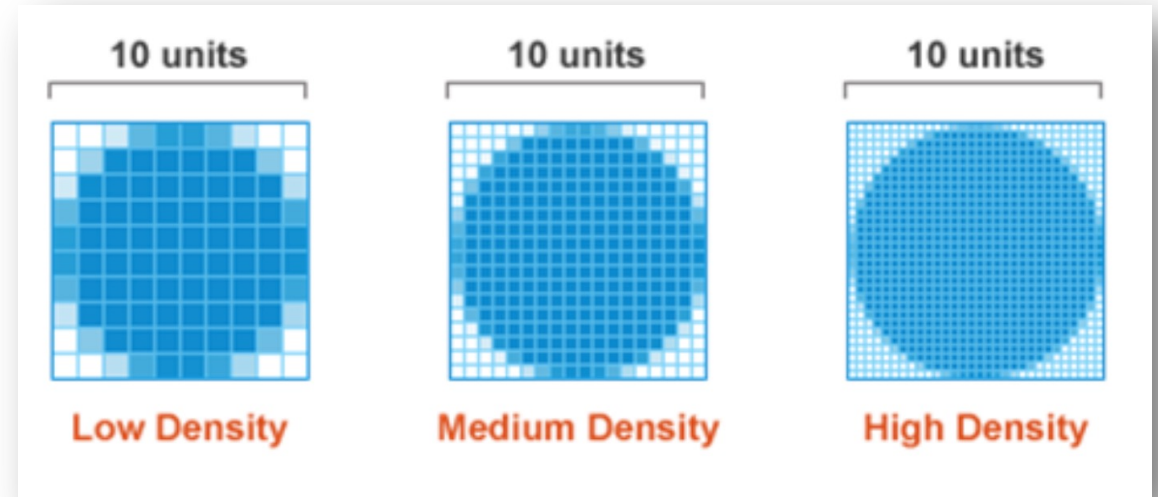
Watch - Intro to Pixels

<https://shorturl.at/orv35>

Pixel Density

- Pixel density can vary greatly between devices.
- To keep sizing more consistent between devices, browsers typically automatically scale pixel sizes using CSS pixels.
- CSS pixels are larger than *device pixels* on high resolution displays.
- Specifying the following head attribute helps ensure consistent pixel sizing:

`<meta name="viewport" content="width=device-width, initial-scale=1.0" />`



Absolute CSS Size Units

Unit	Name	Equivalent to
cm	Centimeters	1cm = 37.8px = 25.2/64in
mm	Millimeters	1mm = 1/10th of 1cm
Q	Quarter-millimeters	1Q = 1/40th of 1cm
in	Inches	1in = 2.54cm = 96px
pc	Picas	1pc = 1/6th of 1in
pt	Points	1pt = 1/72nd of 1in
px	Pixels	1px = 1/96th of 1in

Relative Size Units

EMs

- An EM unit is sized relative to the *nearest parent* that has a font-size specification.
- If no parent has a font size, the browser's font size is used (typically 16px).
- In the example to the right, if the parent's font-size was 30px, the span would have a 15px font size.
- Example: <https://shorturl.at/FIPY5>

```
span {  
    font-size: 0.5em;  
}
```

REMs

- A REM unit is also sized relative however, unlike the EM unit, it is always sized relative to the browser's base font size (typically 16px).
- In the example to the right, if the browser's default font size is 16px, this element would have a 32px font size.
- REMs are a good choice to use for font sizing.
- Demo: <https://shorturl.at/gAL78>

```
#top-div {  
    font-size: 2rem;  
}
```

Percentage and Viewport Sizing

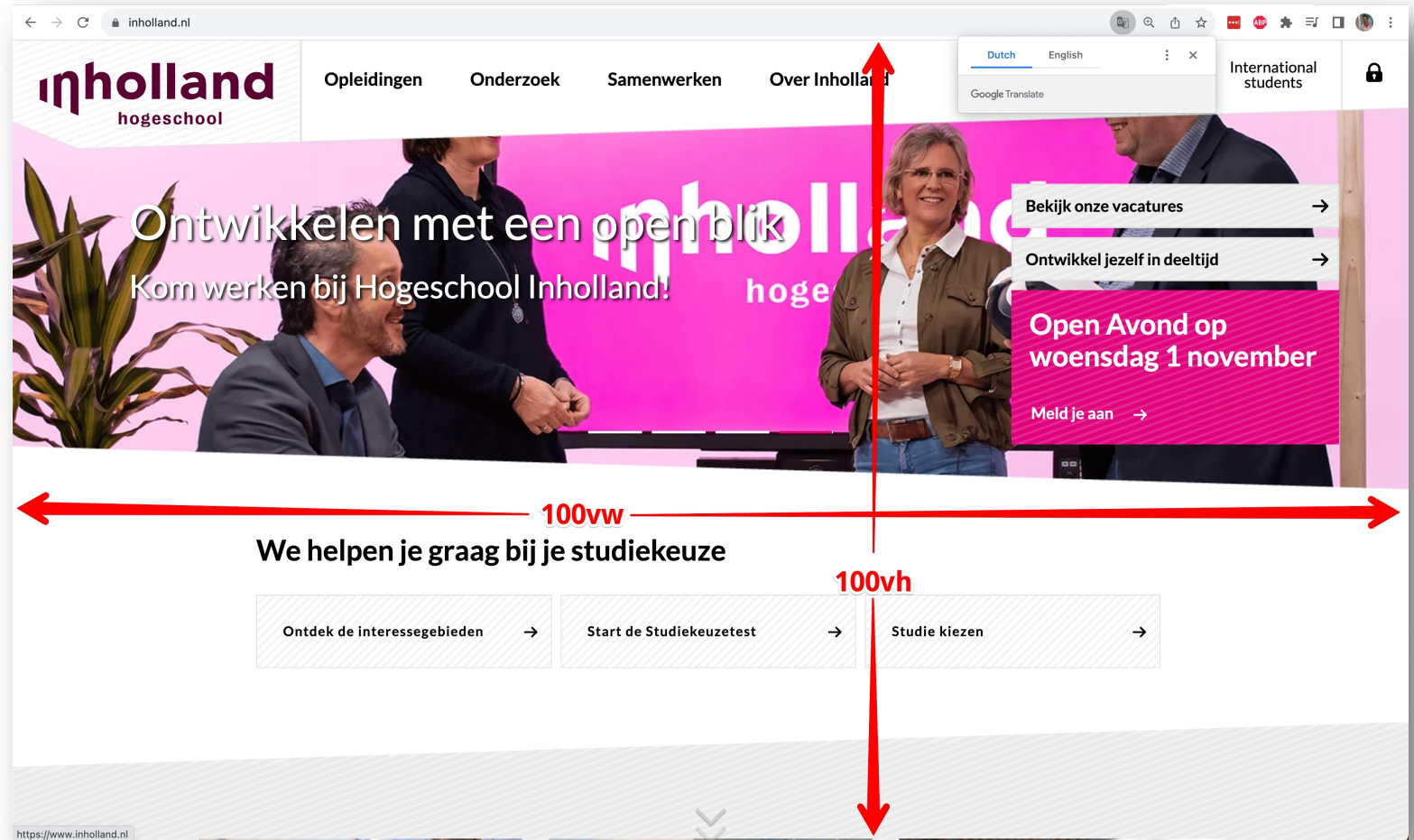
Percentages

- Generally, when you use percentages for elements in CSS, the percentage is a percentage of the containing block.
- For fonts, the percentage is a percentage of the inherited font size.
- There are a variety of more unusual percentage calculations: <https://shorturl.at/fBLOR>

```
body {  
    width: 90%;  
    margin-left: 10%;  
    line-height: 160%;  
}
```

Viewport Width and Height

- VW and VH units are sized relative to the entire browser viewport.
- 100vh is 100% of the viewport height
- 100vw is 100% of the viewport width
- VW and VH units are often used to ensure minimum sizes for the the page's body or main wrapper element.



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