

# CSS Basics - I

Special class

Hello Everyone

Audible  
Visible

HTML doc → add color  
visually appealing

HTML → what?  
↳ description  
↳ sketch

CSS Basics  
Why learn CSS?  
→ How  
→ appearance  
→ styling  
→ formatting

voice → reload  
video →

CSS → Cascading style sheet → xyz



# Selectors in CSS → ? is a way to select an element/s

## 1. Simple Selector //

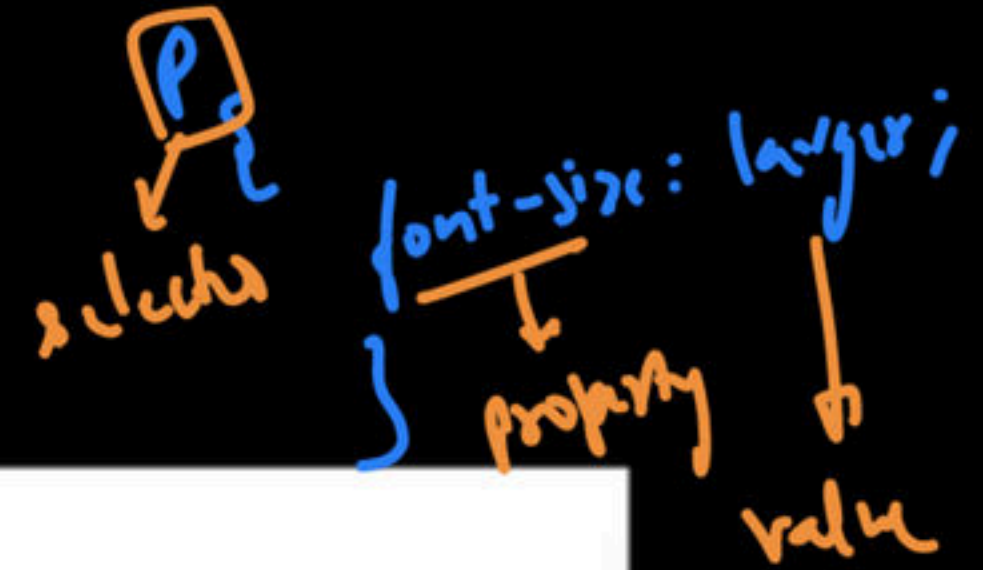
1. Element Selector ✓

2. Class Selector ✓

3. ID Selector ✓

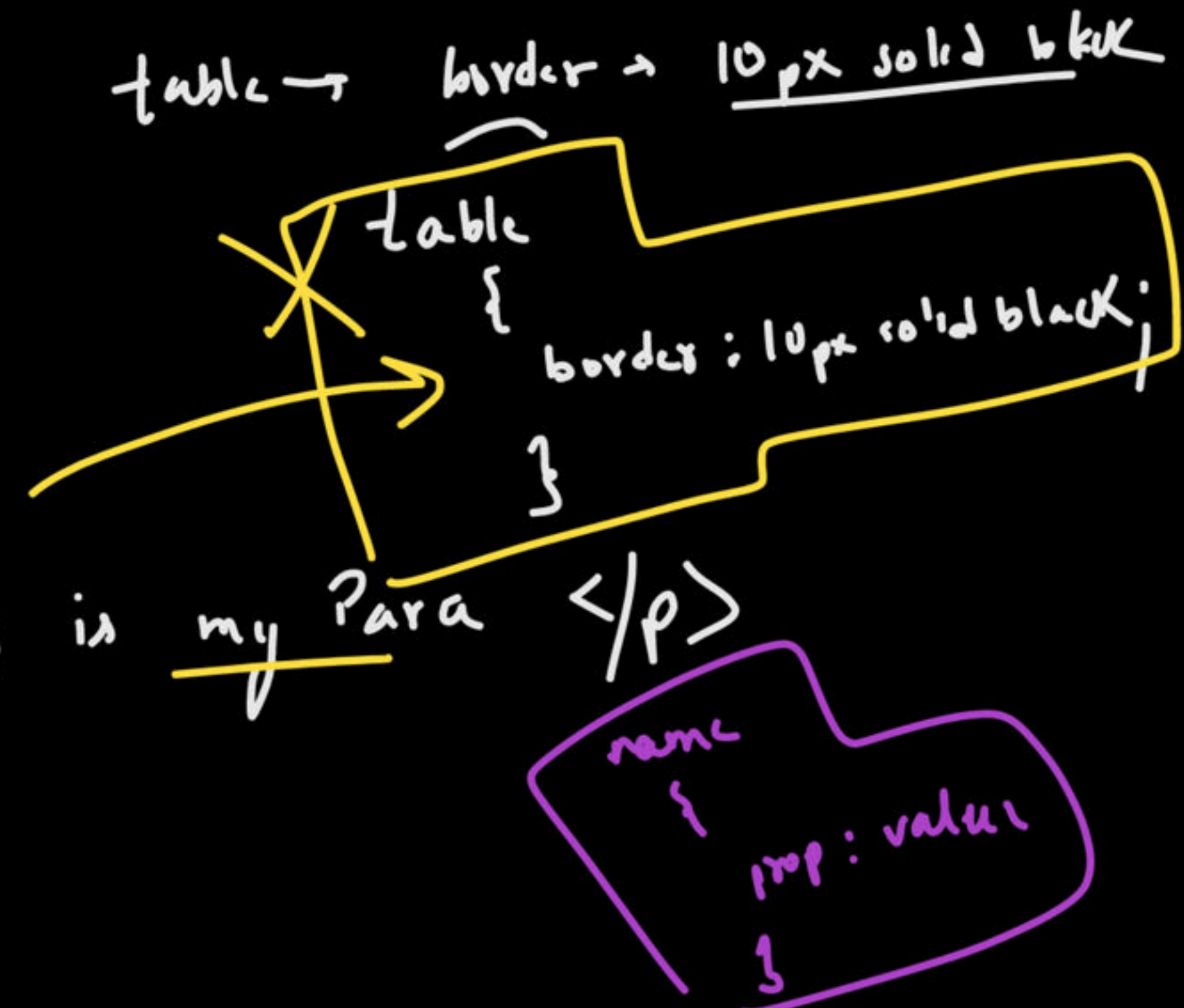
## 2. Pseudo-class Selector

## 3. Multiple Selector



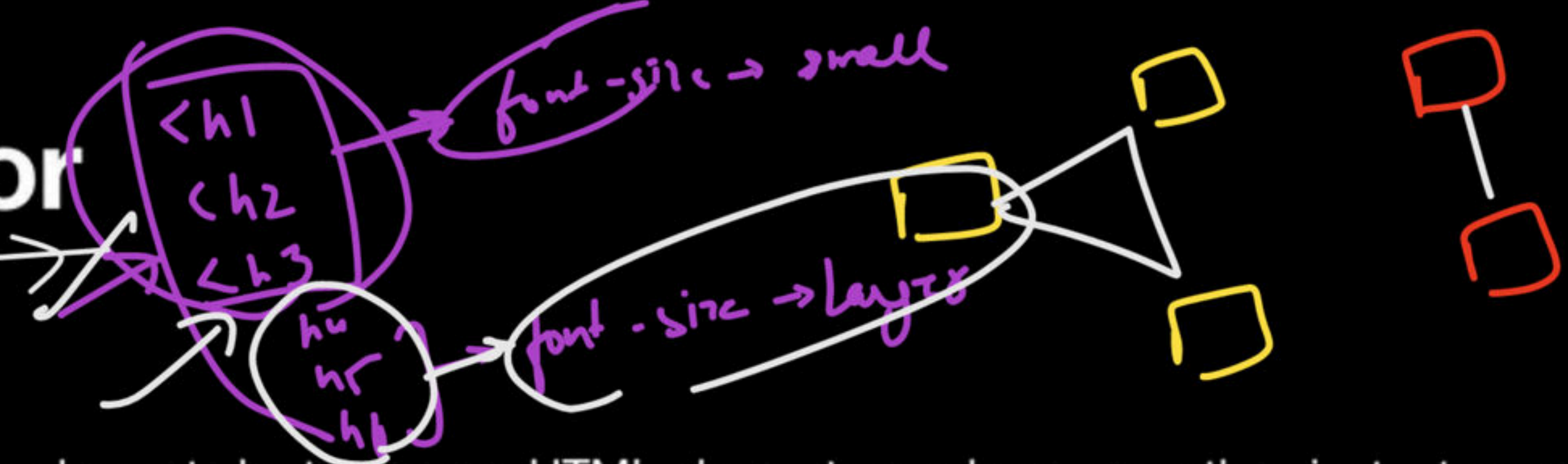
/ type Selector / tag Selector

- P  
h1 → b  
long  
head  
with  
section

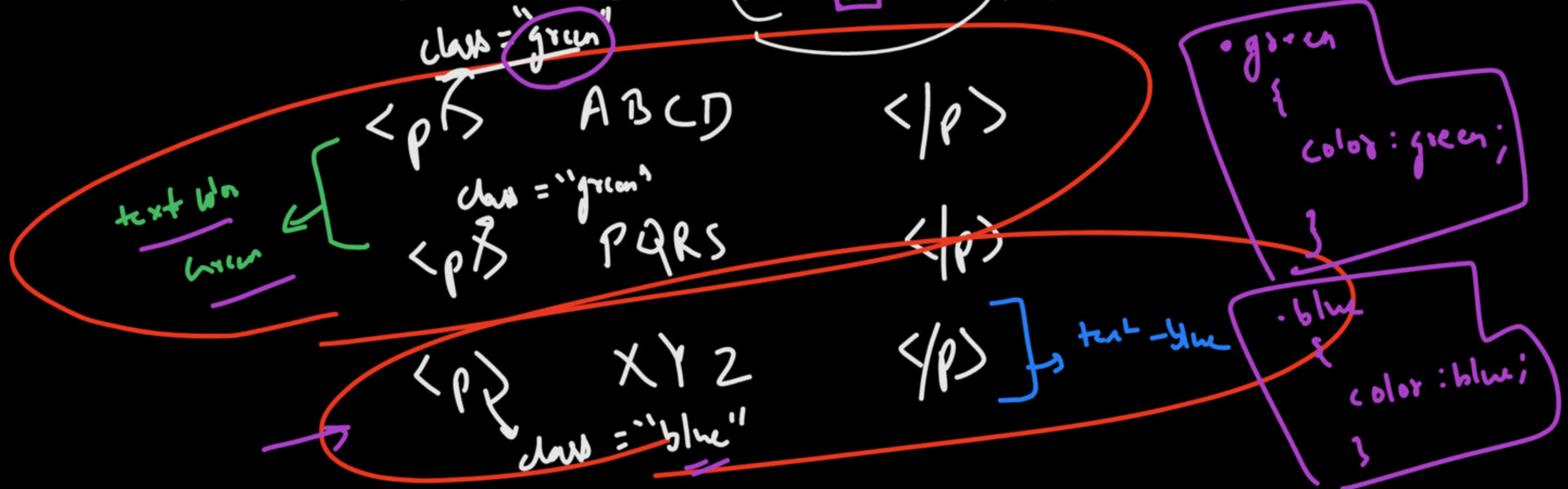




# Class Selector



- CSS is not limited to selecting elements by tag name. HTML elements can have more than just a tag name; they can also have attributes. One common attribute is the class attribute. It's also possible to select an element by its class attribute.
- To select an HTML element by its class using CSS, a period (.) must be prepended to the class's name.





# ID Selector

unique

collycid

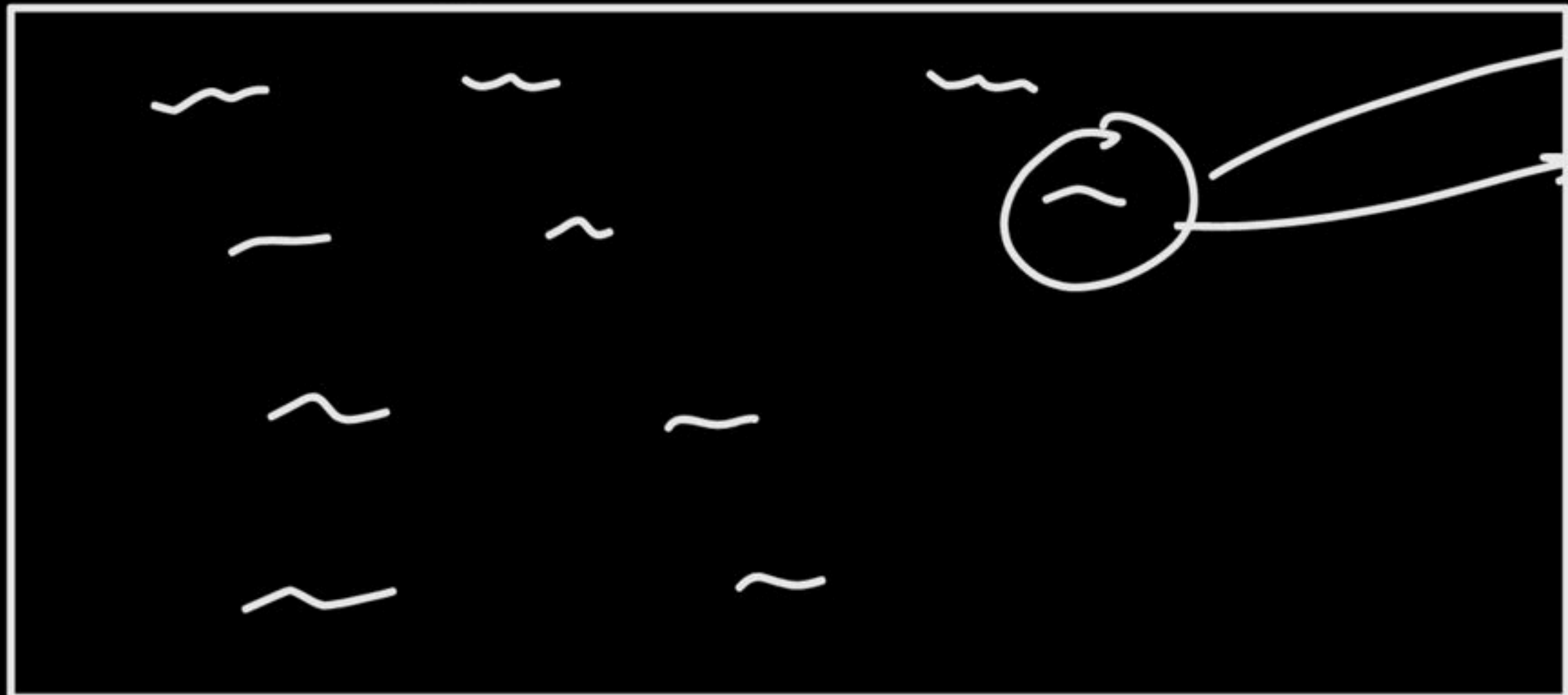
adhar  
↑

card

112

112

- For situations where you need more specificity in styling, you may also select elements for CSS using an id attribute. You can have different ids associated with a class (although a class is not required).
- The id attribute can be added to an element, along with a class attribute. On the CSS side, the delineation is made by using # to represent an id, the same way . is used for class.



button →

```
id = "temp-button"
```

```
#temp-button  
{  
  color: red;  
}
```

# Pseudo-classes Selector

element → special state

- A CSS pseudo-class is a keyword added to a selector that specifies a special state of the selected element(s). For example, :hover can be used to change a button's color when the user's pointer hovers over it.

visited  
unvisited  
hover  
active

selector : pseudo class

prop : value

class

id



# Multiple Selector

/ Grouping Selector

- What if we want to add some styles to all our headings? We don't want to have redundant rules, since that would eventually become a nightmare to maintain and is not scalable at all.
- Instead, we can select multiple HTML elements in the same CSS rule by separating them with commas.
- Copying and pasting code is usually a bad idea for web developers, and multiple selectors can help reduce that kind of behavior quite a bit.



table, ~~tr~~, ~~td~~

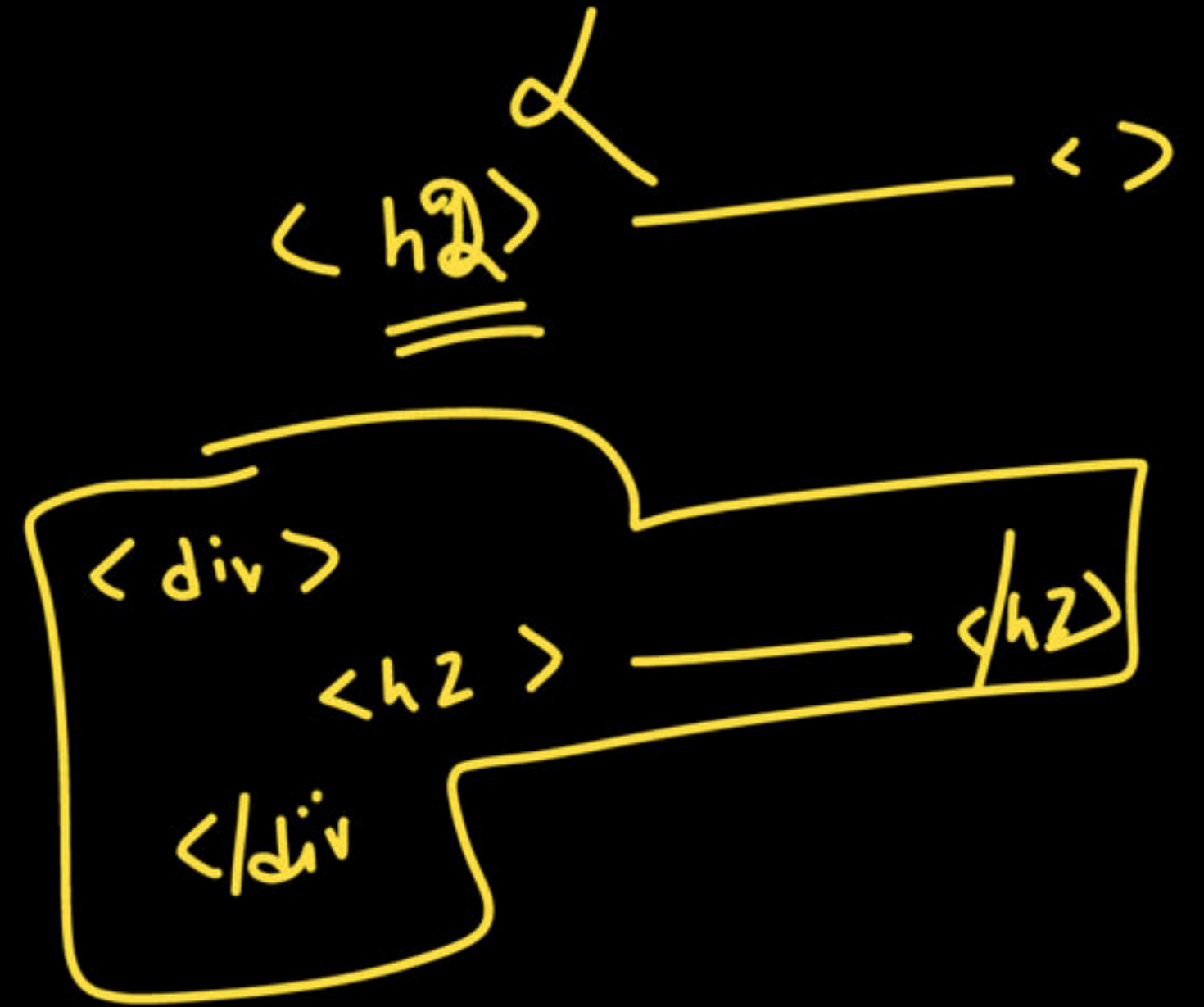
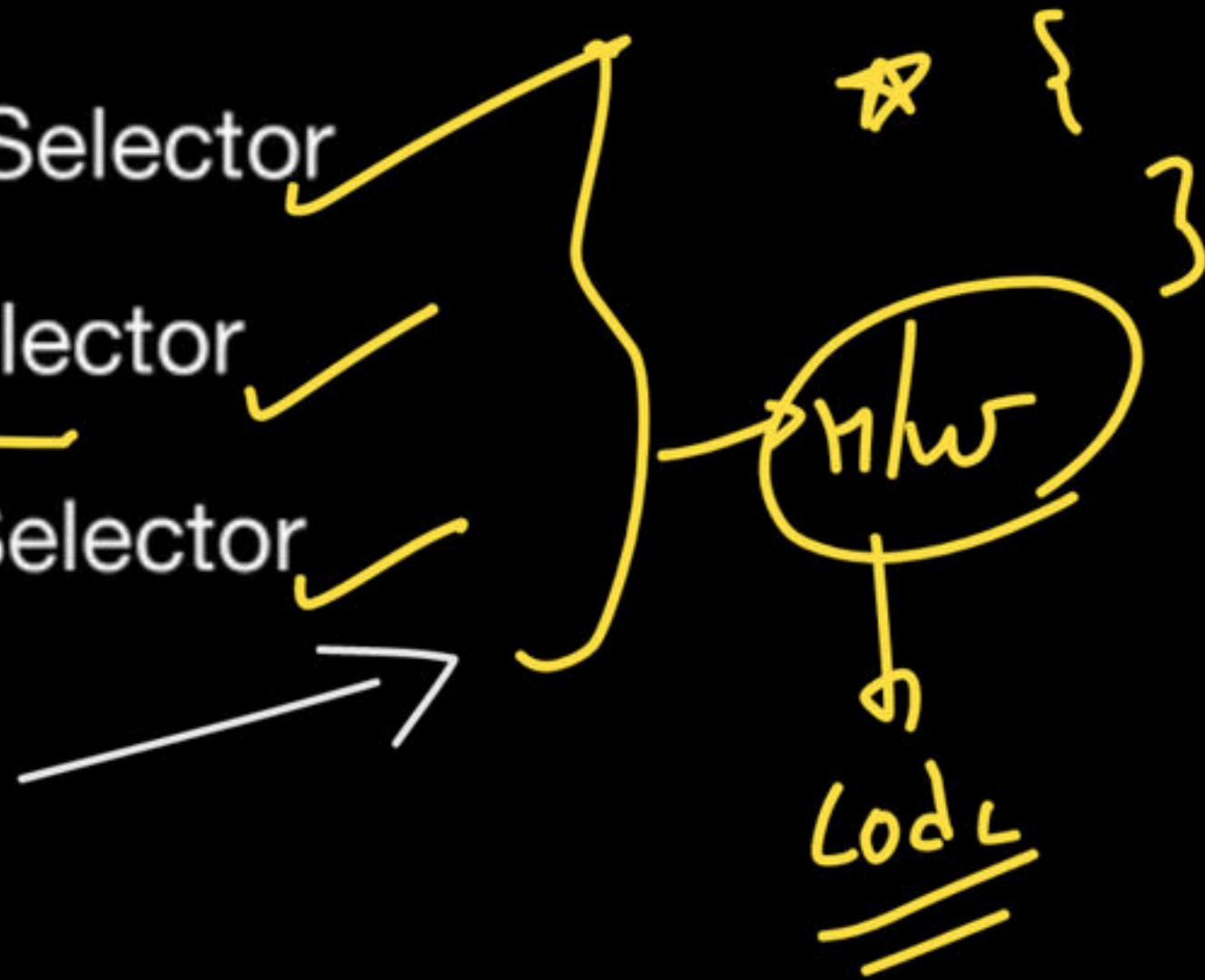
`border: 1px solid black;`

}



# Explore time:

- Universal Selector ✓
- Nested Selector ✓
- Attribute Selector ✓



# How to add Styling to HTML?

CSS

HTML doc

- Inline CSS
- Internal / style tag
- External / sheet



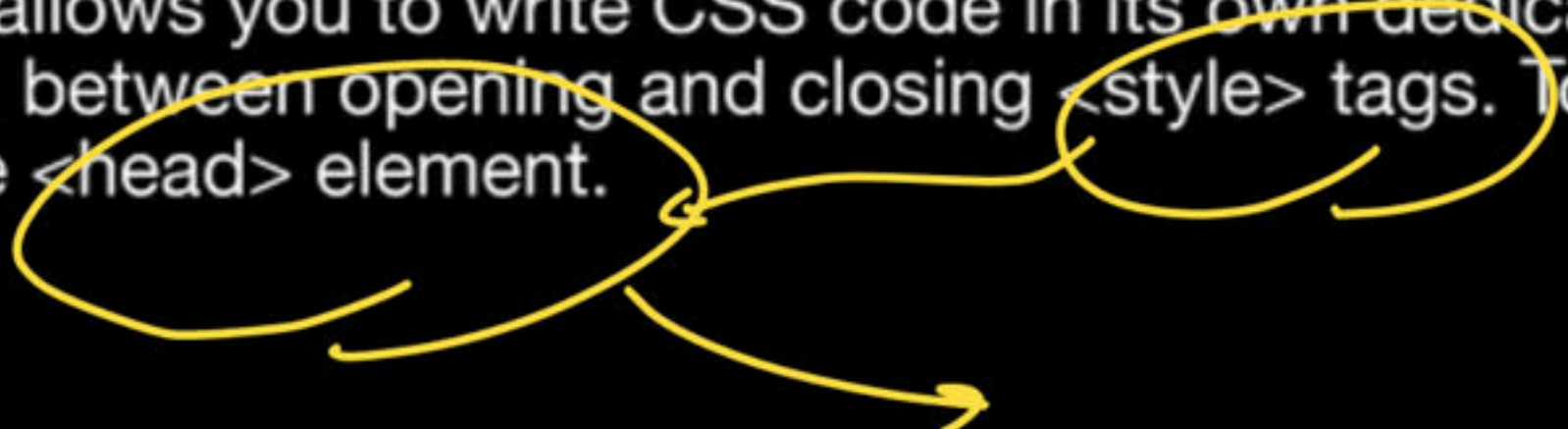


# Inline CSS

- To style an HTML element, you can add the style attribute directly to the opening tag. After you add the attribute, you can set it equal to the CSS style(s) you'd like applied to that element.
- Inline styles should be avoided at all costs because they make it impossible to alter styles from an external stylesheet.
- That said, there will be many times when you need to apply styles to only a specific HTML element. For this, you should always use CSS classes instead of inline styles.

# Internal CSS / Style Tag

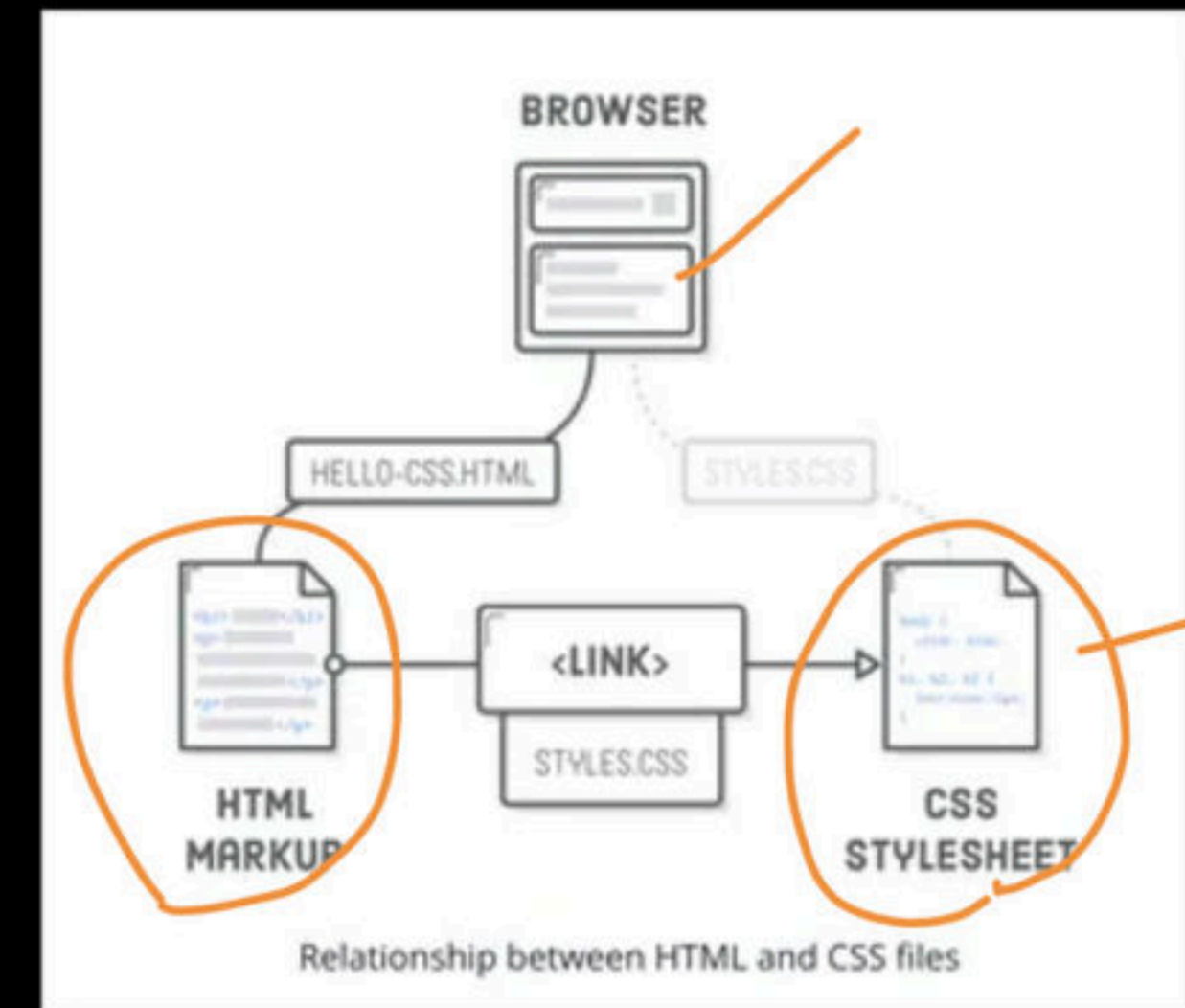
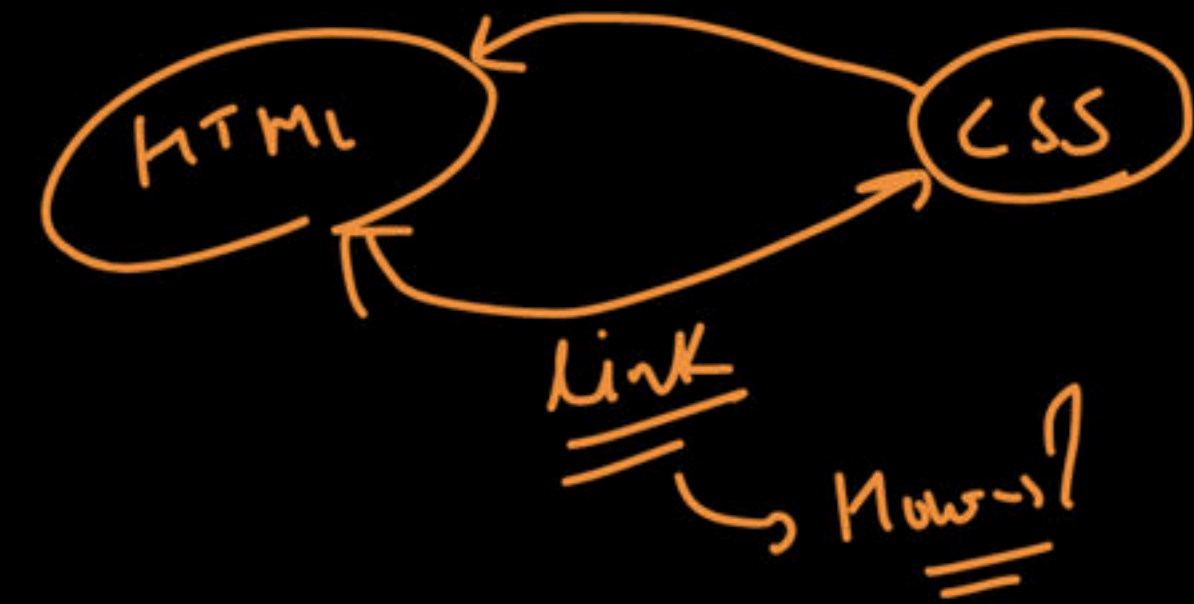


- Inline styles are a fast way of styling HTML, but they also have limitations. If you wanted to style, for example, multiple `<h1>` elements, you would have to add inline styling to each element manually. In addition, you would also have to maintain the HTML code when additional `<h1>` elements are added.
  - Fortunately, HTML allows you to write CSS code in its own dedicated section with the `<style>` element. CSS can be written between opening and closing `<style>` tags. To use the `<style>` element, it must be placed inside of the `<head>` element.
- 



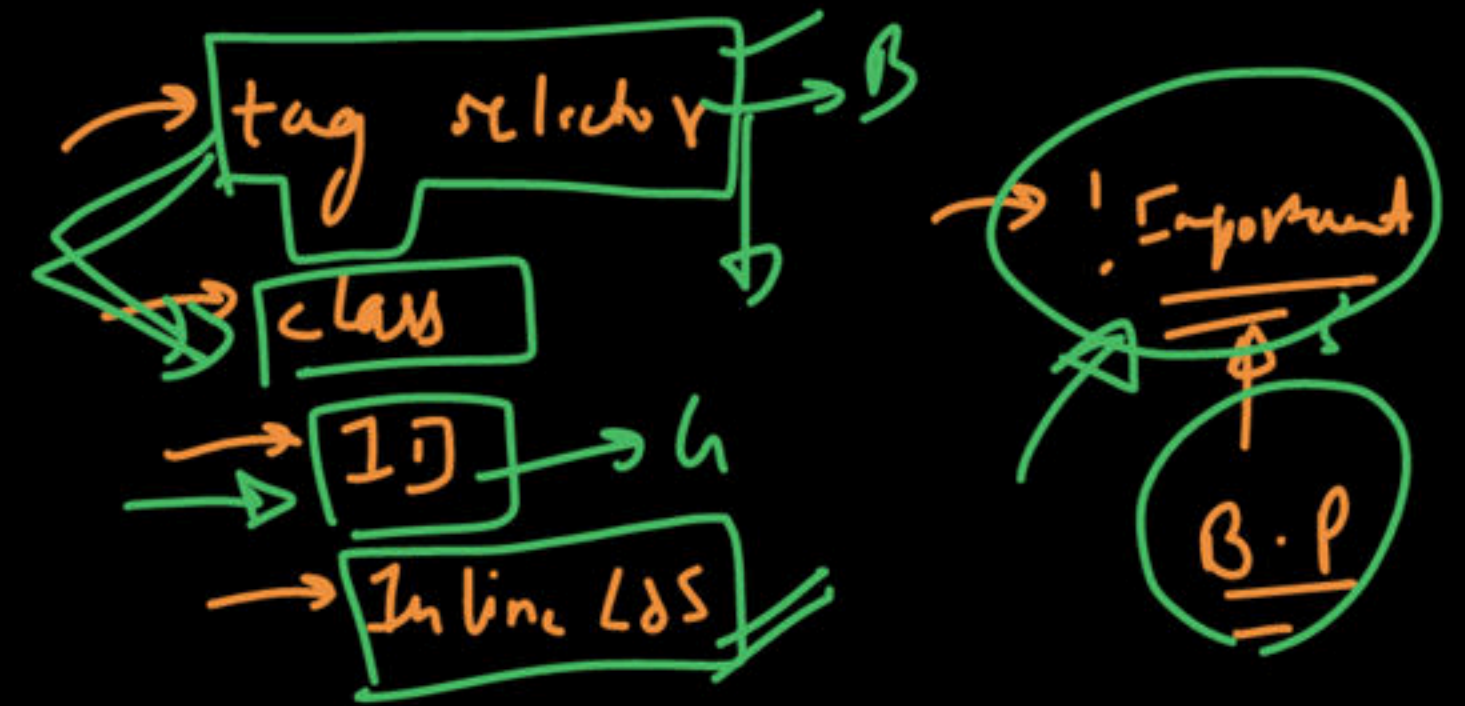
# External CSS

- When HTML and CSS code are in separate files, the files must be linked. Otherwise, the HTML file won't be able to locate the CSS code, and the styling will not be applied.
- You can use the `<link>` element to link HTML and CSS files together. The `<link>` element must be placed within the head of the HTML file.



# Specificity

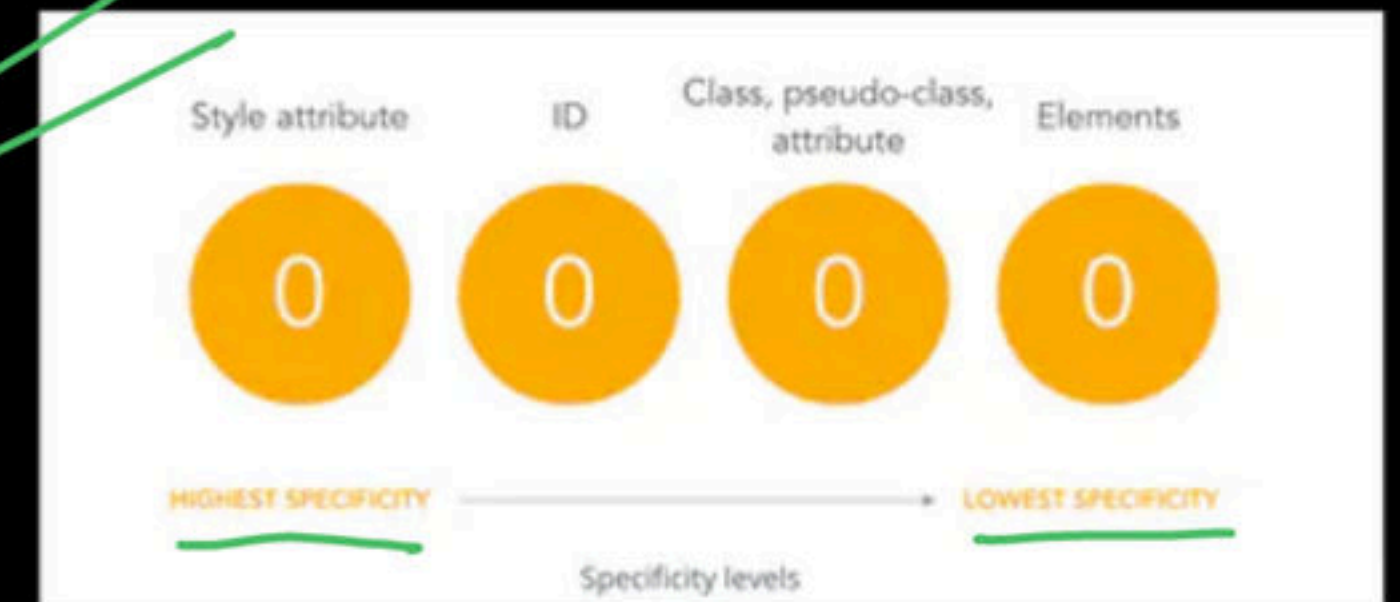
Break  $\rightarrow \frac{1}{\text{min}}$



- Because elements can have multiple CSS selectors, there is a hierarchy for the weight given to each type of selector. Here is the logical order of selectors from least to most weight assigned:

brage

- Type selectors (e.g., h1) and pseudo-elements (e.g., ::before).
- Class selectors (e.g., .example), attributes selectors (e.g., [type="radio"]) and pseudo-classes (e.g., :hover).
- ID selectors (e.g., #example).





1min

 `<div class = "divc" id = "divi" >` Kya Naal meri dost `</div>`

`<style>`

```
div #divi  
{  
  bg-color: yellow;  
  div {  
    bg-color: red;  
    color: blue;  
  }  
  divc {  
    bg-color: orange;  
    font-size: large;  
  }
```

`</style>`

1, 2, 3

bg-color: yellow  
color: blue  
font-size: large



# Box Model in CSS

contents  
→ h  
→ w

Border

padding  
border  
content  
margin

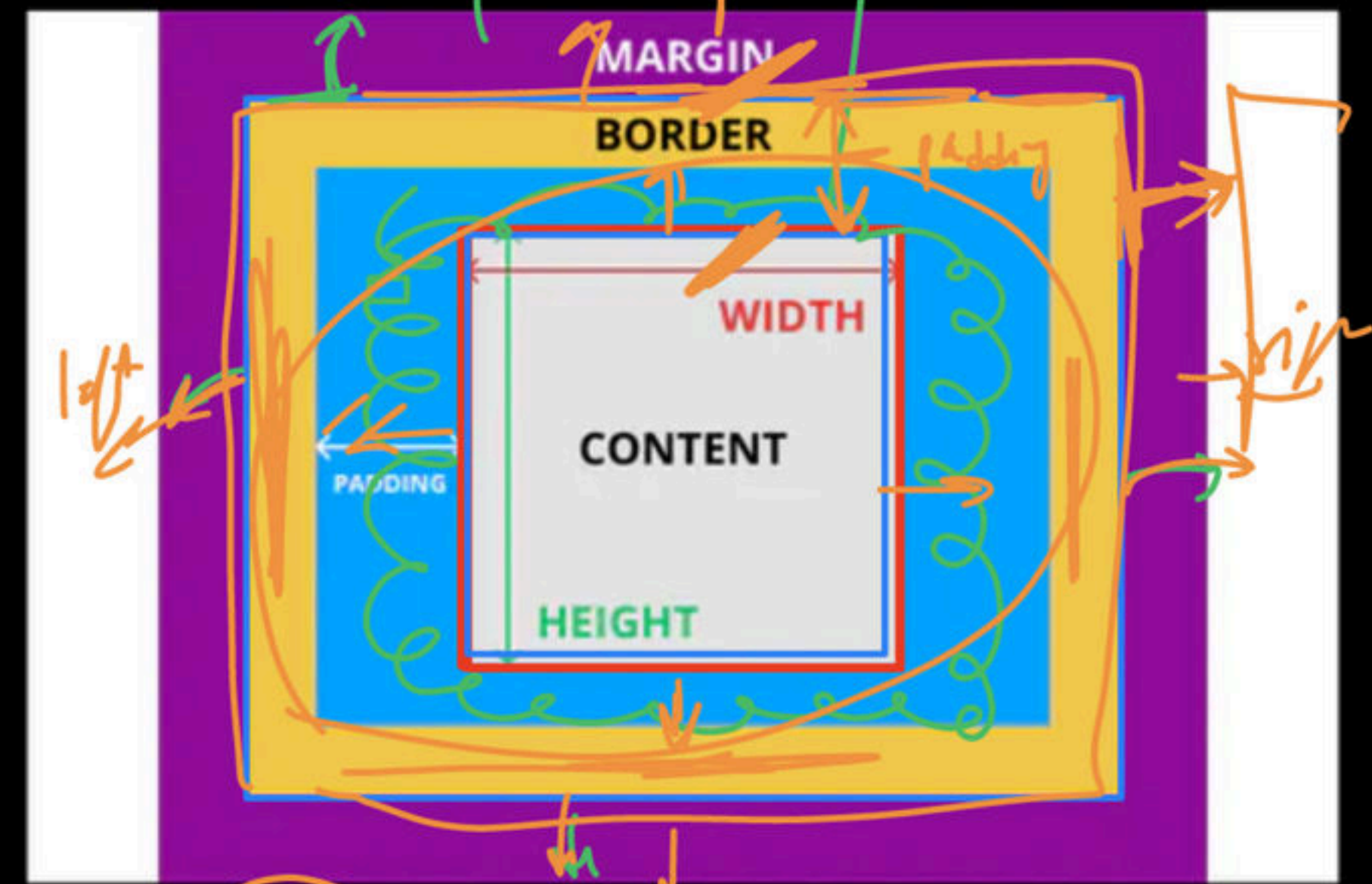
margin-left

margin-right

margin-top

margin-bottom

- The box model is the basic building block of CSS.
- According to the box model concept, every element on a page is a rectangular box and may have width, height, padding, borders, and margins.



margin = 10px  
padding-left  
padding-right  
padding: 25px  
bottom



# Colors in CSS

---

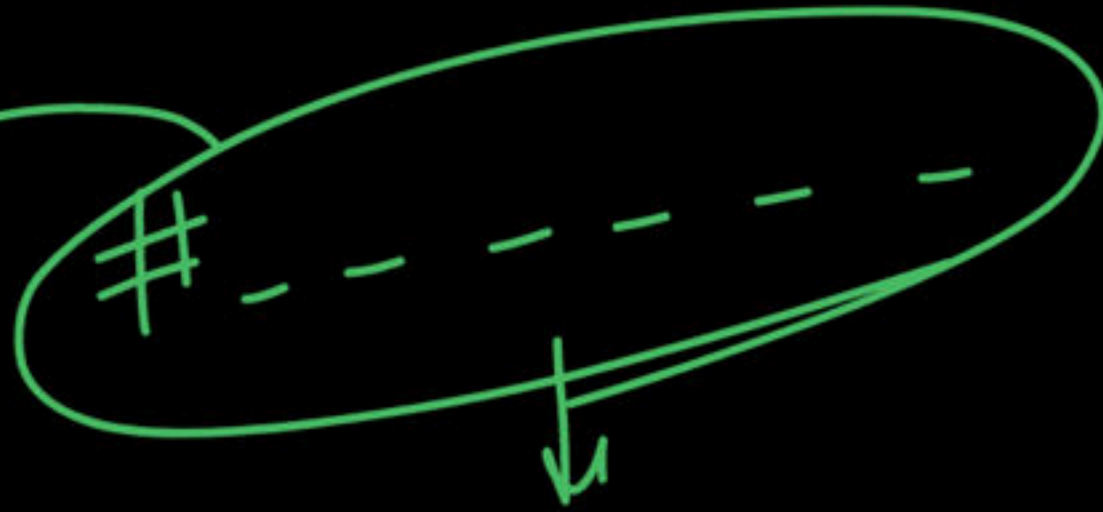
- Colors in CSS can be specified by the following methods:

- Hexadecimal colors
- RGB colors
- Predefined/Cross-browser color names
- RGBA colors
- HSL colors
- HSLA colors

color: green  
yellow  
red

# Hexadecimal Colors

Blue



- A hexadecimal color is specified with: #RRGGBB, where the RR (red), GG (green) and BB (blue) hexadecimal integers specify the components of the color. All values must be between 00 and FF.
- For example, the #0000ff value is rendered as blue, because the blue component is set to its highest value (ff) and the others are set to 00.

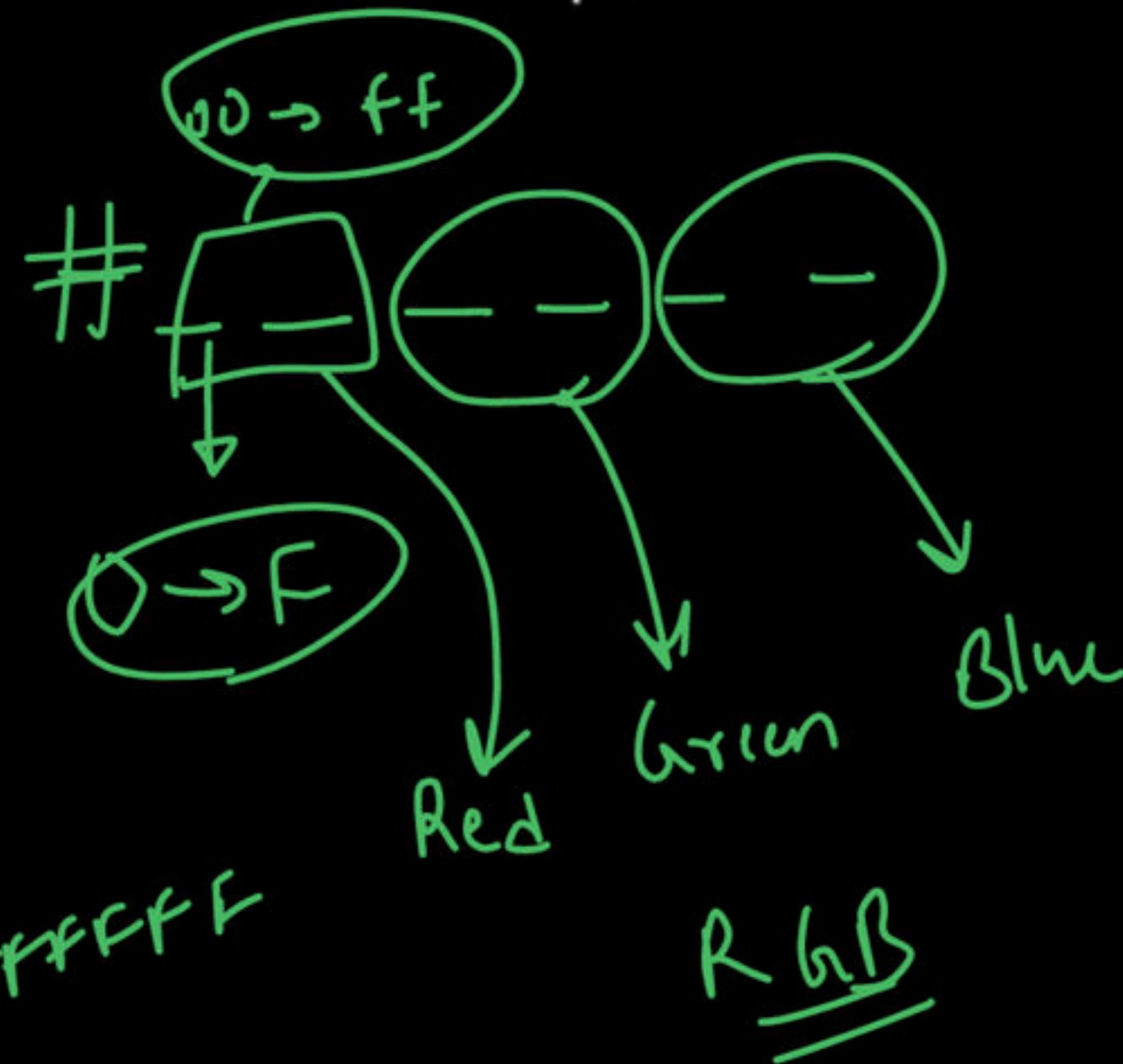
Blue → #0000FF

Green → #00FF00

Red → #FF0000

White → #000000

Black → #FFFFFF





# RGB Colors

rgb ( )

- An RGB color value is specified with the rgb() function, which has the following syntax: rgb(red, green, blue)
- Each parameter (red, green, and blue) defines the intensity of the color and can be an integer between 0 and 255 or a percentage value (from 0% to 100%).
- For example, the rgb(0,0,255) value is rendered as blue, because the blue parameter is set to its highest value (255) and the others are set to 0.

rgb(0,0,255) → Blue  
rgb(0,255,0) → Green  
rgb(255,0,0) → Red

rgb( 0 → 255 , 1 , 1 , 1 )  
          ↑          ↑          ↑  
         Red      Green     Blue  
  
rgb(0,0,0) → Black  
rgb(255,255,255) → White

# Predefined/Cross-browser Color Names

- 140 color names are predefined in the HTML and CSS color specification.

blue

blue

black

yellow

cyan

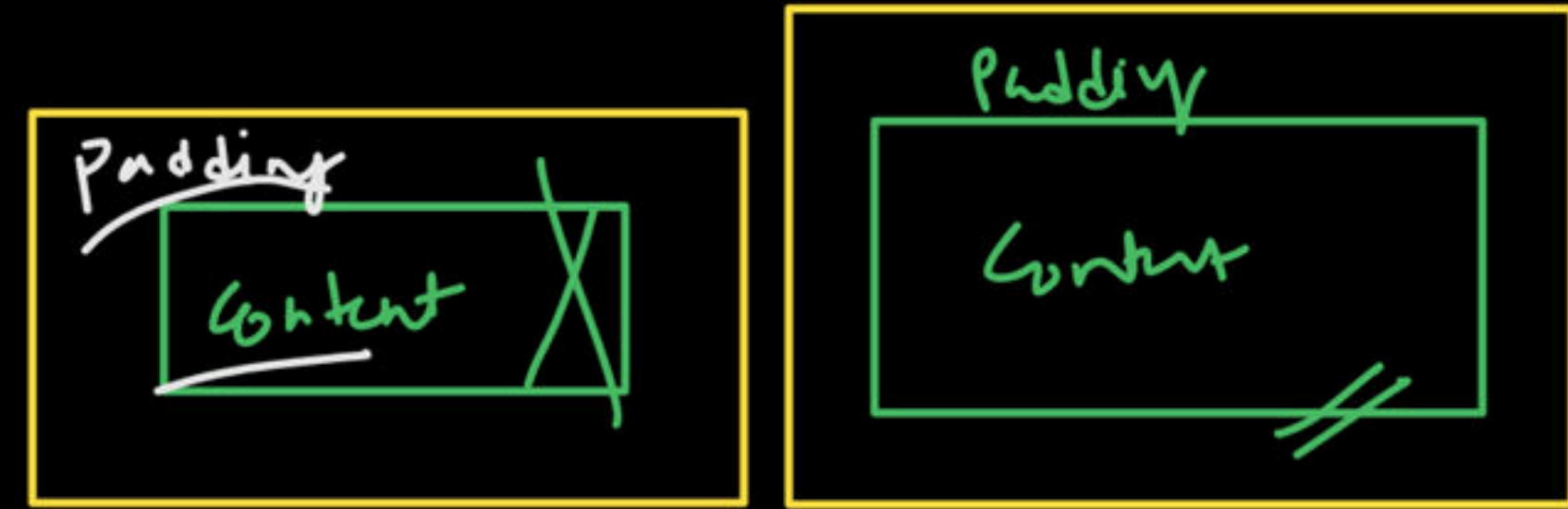


# Explore Time:

H/w

- Font:
  - Font-family
  - Font-weight
  - Font-style
  - Emphasis & Importance
  - How to add External Fonts?

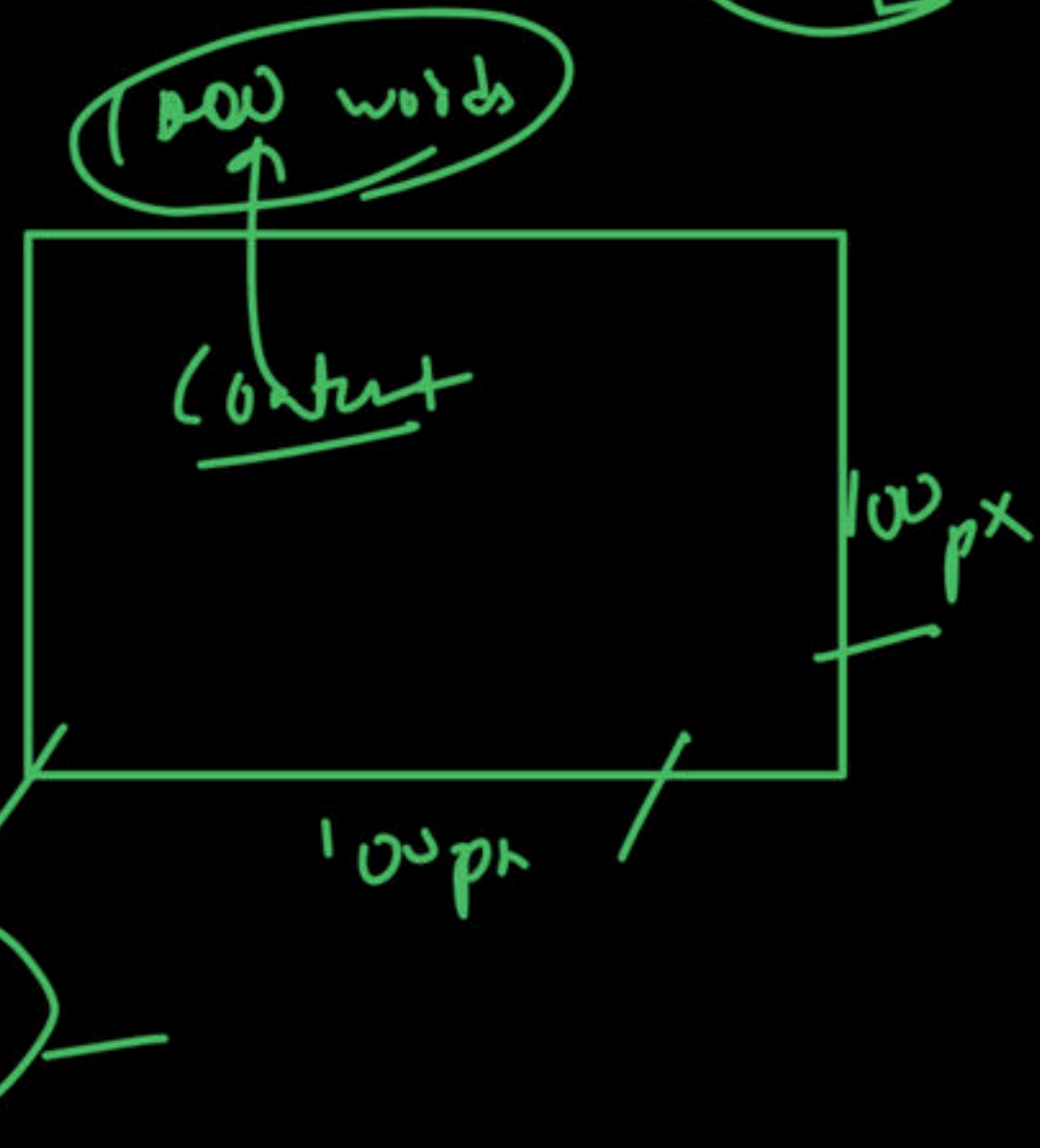
google → font



border.

box-sizing: border-box

No box  
sizing



# Units in CSS

1. Absolute unit
2. Percentage unit
3. Relative unit
  1. Relative to font size
  2. Related to Document

css pixel  
→ r/w pixel

border: 1px  
font-size: 20px  
width: 100px  
height: 100px

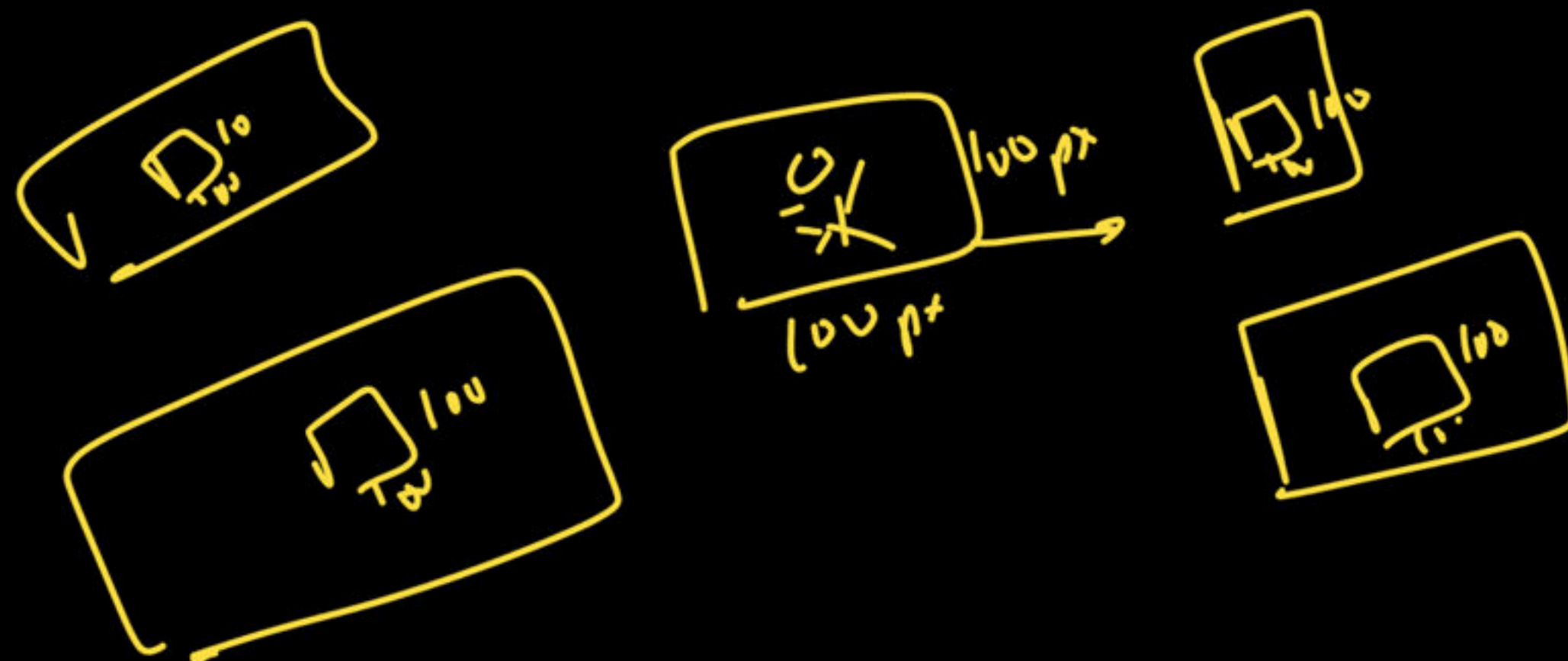
1/96 inch  
pixel → 1/96 inch  
what?



# Absolute Unit

- mm
- cm
- in
- px

fixed → 1 inch  
96



# Percentage Unit

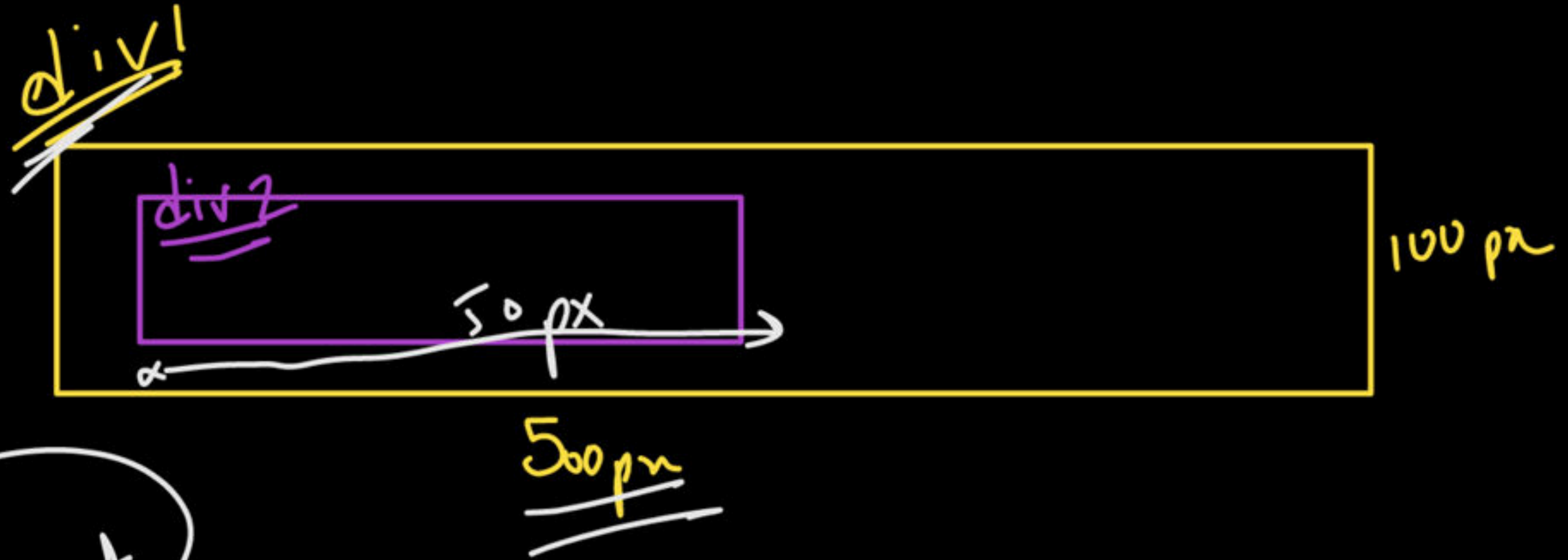
- `div { width: 10%; }`

10% of parent element

10% of 500px

$\frac{10}{100} \times 500px$

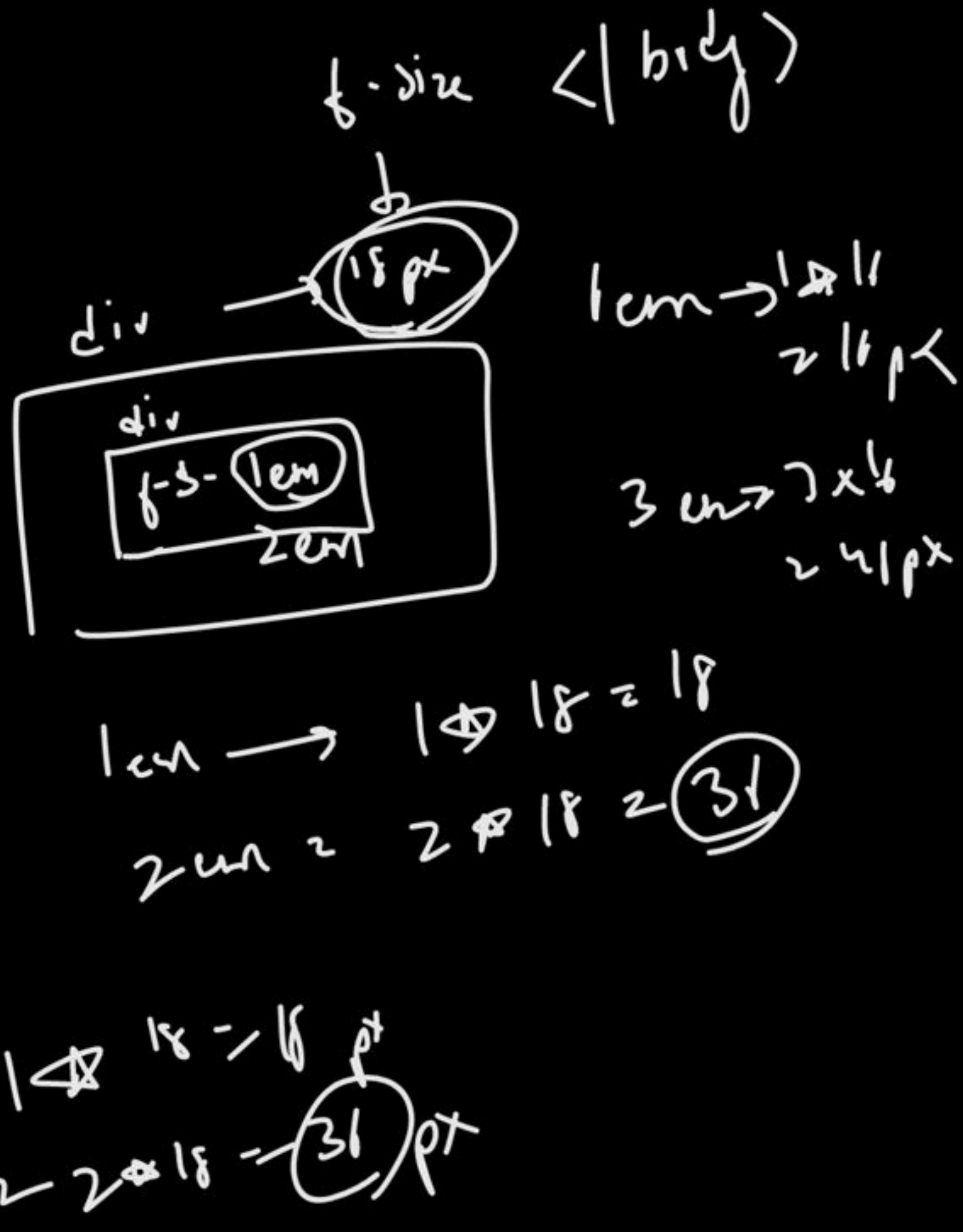
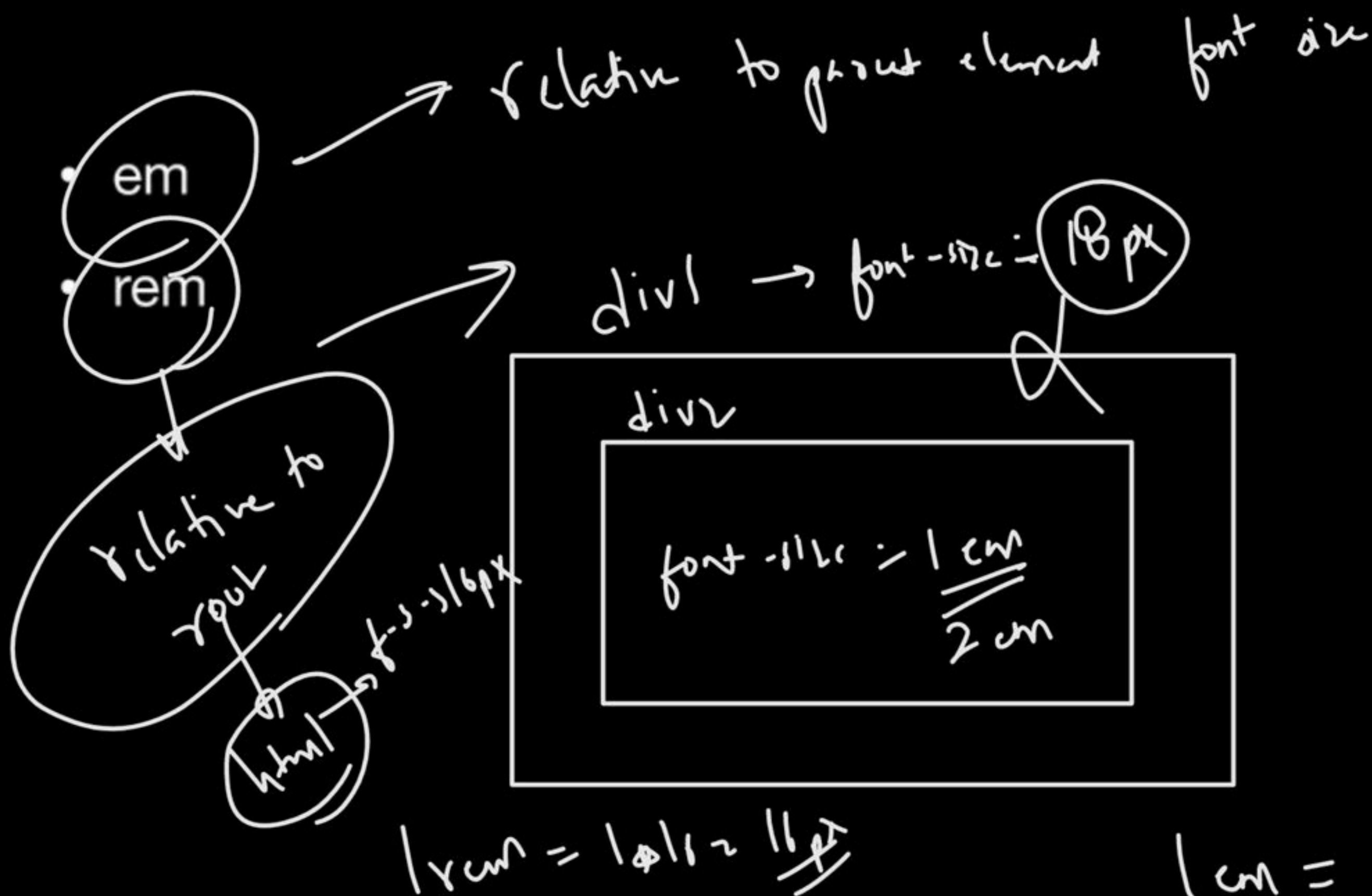
50px





# Relative Unit to Font size

$\langle \text{body} \rangle \rightarrow 18 \text{ px}$



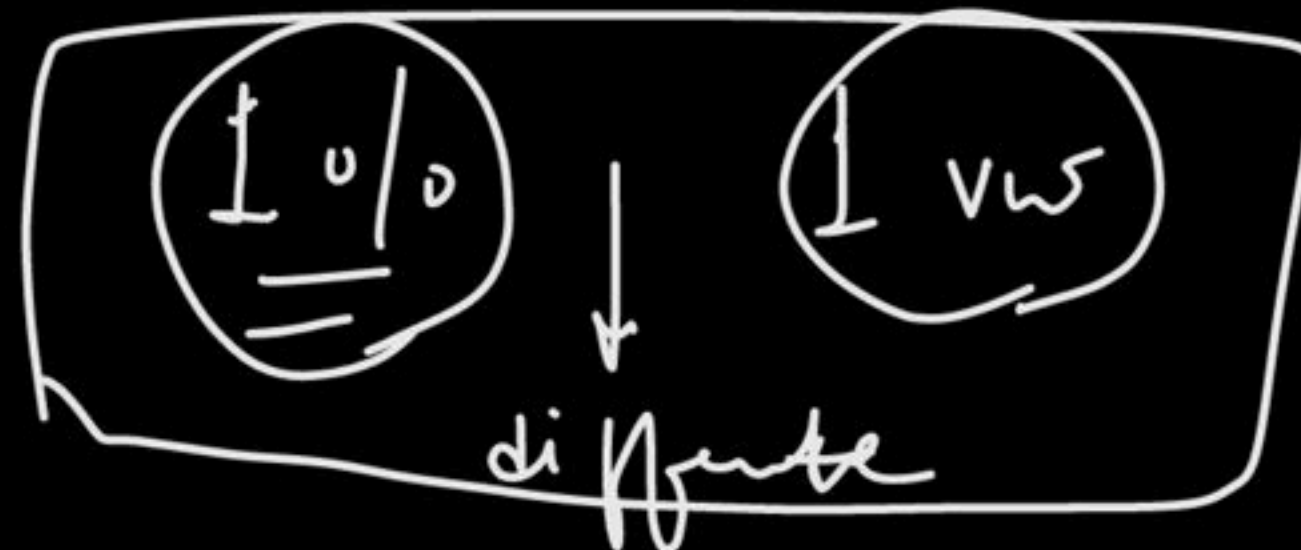
# Relative Unit to ViewPort

- vw

- vh

$\frac{1}{100}$  width of viewport.

$\frac{1}{100}$  ~~width~~ height of viewport



any ki class  
↳ Viewport  
↳ image



# Homework

- Style Tribute page using External CSS.
- Can you create a card like this?



the card design

same to share

card

Tribute Page

↳ Linus Torvalds  
video

play

10:55

DSA

1 hr