

# Styling a Web Page with CSS

Colors and Names in CSS

# CSS Colors

- Last time: Basics of CSS
- This time: Colors
  - Names and numbers

# CSS Syntax

```
h1 {  
  text-align: center;  
  color: blue;  
}
```

- Last time:
  - `<h1>` blue and centered
  - Other colors?

# 140 Color Names

BlueViolet



Gold



LightSteelBlue



FireBrick



- 140 Standard color names
  - Remember them all?
  - <http://www.w3.org/TR/2003/CR-css3-color-20030514/#svg-color>
  - What about other colors?

# Millions of Colors?



Duke Blue

- Want more than 140 colors
- Average Human: Millions of Colors
- Example: 12 shades of blue

# Millions of Colors

- How to handle millions of colors?
  - Names?
  - Limit selection?
  - Numbers?
    - Everything is a number
    - Red + Green + Blue, 0–255
    - Can specify 16 million colors

# Color Numbers

BlueViolet

`rgb(138, 43, 226)`

Gold

`rgb(255, 215, 0)`

LightSteelBlue

`rgb(179, 196, 222)`

FireBrick

`rgb(178, 34, 34)`

- Can specify with `rgb` (red, green, blue)
  - Makes numerical value from R, G, & B



# Color Numbers

BlueViolet

#8A2BE2

Gold

#FFD700

LightSteelBlue

#B0C4DE

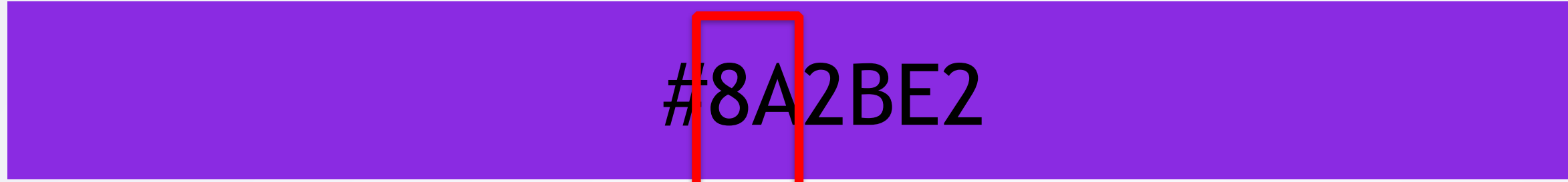

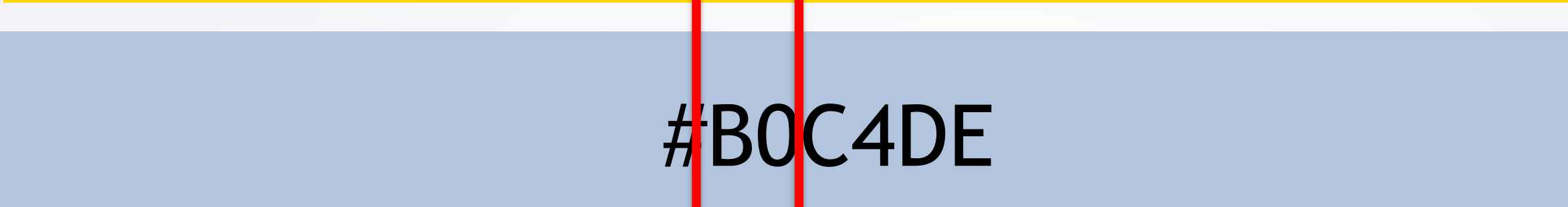

FireBrick

#B22222

- Or entire number: # + 6 **hex** digits
  - Hexadecimal: base 16
  - Digits: 0–9, A (10)—F(15)



# Color Numbers

BlueViolet	 #8A2BE2
Gold	 #FFD700
LightSteelBlue	 #B0C4DE
FireBrick	 #B22222

- Or entire number: # + 6 **hex** digits
  - Hexadecimal: base 16
  - Digits: 0–9, A (10)—F(15)

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# Color Numbers

BlueViolet

#8A2BE2

- Hexadecimal values:
  - Each place is 16x previous
  - 1's, 16's, 256's, ... places

# Color Numbers

BlueViolet

#8A2BE2

$$8 * 16 + 10 * 1 = 138$$

- Hexadecimal values:
  - Each place is 16x previous
  - 1's, 16's, 256's, ... places

# Color Numbers

BlueViolet

#8A2BE2

$$8 * 16 + 10 * 1 = 138$$

$$2 * 16 + 11 * 1 = 43$$

- Hexadecimal values:
  - Each place is 16x previous
  - 1's, 16's, 256's, ... places

# Color Numbers

BlueViolet

#8A2BE2

$$8 * 16 + 10 * 1 = 138$$

$$14 * 16 + 2 * 1 = 226$$

$$2 * 16 + 11 * 1 = 43$$

- Hexadecimal values:
  - Each place is 16x previous
  - 1's, 16's, 256's, ... places



# Color Picker Tools

- May use color picker tool
  - Let us see an example

# CSS: Colors

- 140 Standard Names
- Specify by number
  - `rgb(red, green, blue)`
  - #hex value
  - Color picker:
    - [https://developer.mozilla.org/en-US/docs/Web/CSS/Tools/ColorPicker\\_Tool](https://developer.mozilla.org/en-US/docs/Web/CSS/Tools/ColorPicker_Tool)