

# Positioning and Layout

## Position and Float



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# Overview

# CSS Selectors

- Element selectors
- The `class` selector
- The `id` selector
- CSS Attribute Selectors
- Pseudo-classes
- Selectors based on relationships

# Element selectors

Adding white space after each paragraph

```
p {  
    padding-bottom: 15px;  
}
```

# The `class` selector

All HTML elements with class="mod" will have border on top

```
.mod {  
    border-top: 1px solid #000;  
}
```

# The `id` selector

Adding border to the top and bottom of an HTML element with attribute id="header"

```
#header {  
    border: 1px solid #CCC;  
    border-width: 1px 0;  
}
```

# Attribute Selectors

All anchors that have a title attribute will have blue text color

```
a[title] {  
    color:blue;  
}
```



# Pseudo-classes

Changing the styles of a link when the user's mouse is over it

```
a:hover {  
    text-decoration: underline;  
    color: #C00;  
}
```



# Selectors based on relationships

Changing the styles of a link when the user's mouse is over it

Selector	Selects
<code>A E</code>	Any E element that is a <i>descendant</i> of an A element (that is: a child, or a child of a child, <i>etc.</i> )
<code>A &gt; E</code>	Any E element that is a child of an A element
<code>E:first-child</code>	Any E element that is the first child of its parent
<code>B + E</code>	Any E element that is the next <i>sibling</i> of a B element (that is: the next child of the same parent)

*You can combine these to express complex relationships.*

# Explain the following selectors

`Y { ... }`

`Z Y { ... }`

`Z Y X { ... }`

# Explain the following selectors

```
Z > Y { ... }
```

```
Z Y:first-child { ... }
```

```
Z + Y > X:last-child { ... }
```

```
Z:hover { ... }
```

```
Z + Y > X:last-child > L:hover { ... }
```

```
Z + Y:nth-child(odd)      { ... }  
Z + Y:nth-child(even)     { ... }  
Z + Y:nth-child(3n)       { ... }  
Z + Y:nth-child(3n-1)     { ... }
```

# Explain the following selectors

```
#header ul { ... }  
#header ul li { ... }  
#header ul li a { ... }
```

```
.mod { ... }  
.mod header { ... }  
.mod header h3 { ... }  
.mod header h3 a { ... }  
  
#sidebar .mod header h3 a { ... }
```

# Explain the following selectors

```
article section { ... }  
article section .more { ... }  
article section header { ... }  
article section footer { ... }
```

```
article.page section.meta { ... }  
article.page section.meta p { ... }
```

# Explain the following selectors

```
#main { ... }  
#main article { ... }  
#main article:first-child:last-child { ... }
```

# Inline & Block



# Inline Elements

An inline element has the following characteristics:

- Flows along with text content
- Will not clear previous content to drop to the next line
- Is subject to white-space settings in CSS
- Will ignore top and bottom margin settings, but will apply left and right margins
- Will ignore the width and height properties
- Is subject to the vertical-align property

# Block Elements

A block element is an element that has the following characteristics:

- If no width is set, will expand naturally to fill its parent container
- Can have margins and/or padding
- If no height is set, will expand naturally to fit its child elements
- By default, will be placed below previous elements in the markup
- Ignores the vertical-align property

# Inline vs Block Elements

```
<p style="border: 1px solid #333;">  
  This is quite <em style="border: 1px solid #333;">a  
  lot</em> of info for one presentation!  
</p>
```

This is quite *a lot* of info for one presentation!

# Width & Height

```
<p style="width: 50%; border: 1px solid #333;">
  This is quite <em style="border: 1px solid #333;">a lot</em> of
  info for one presentation!
</p>
<p style="width: 600px; height: 60px; border: 1px solid #333;">
  Nice!
</p>
```

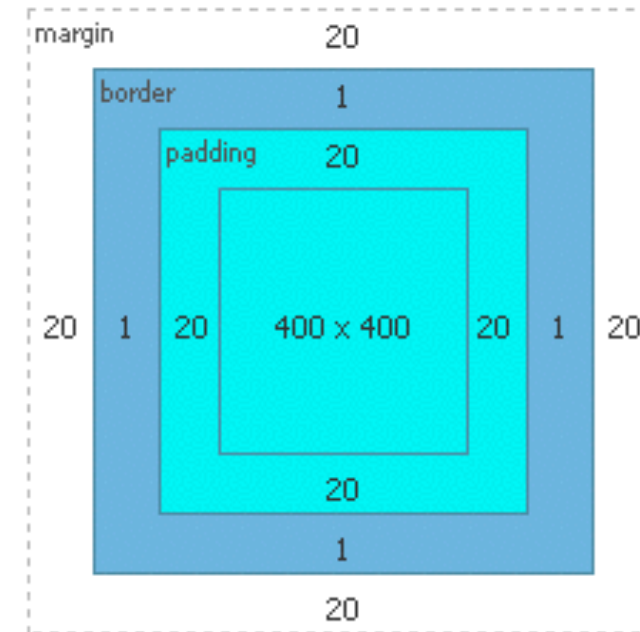
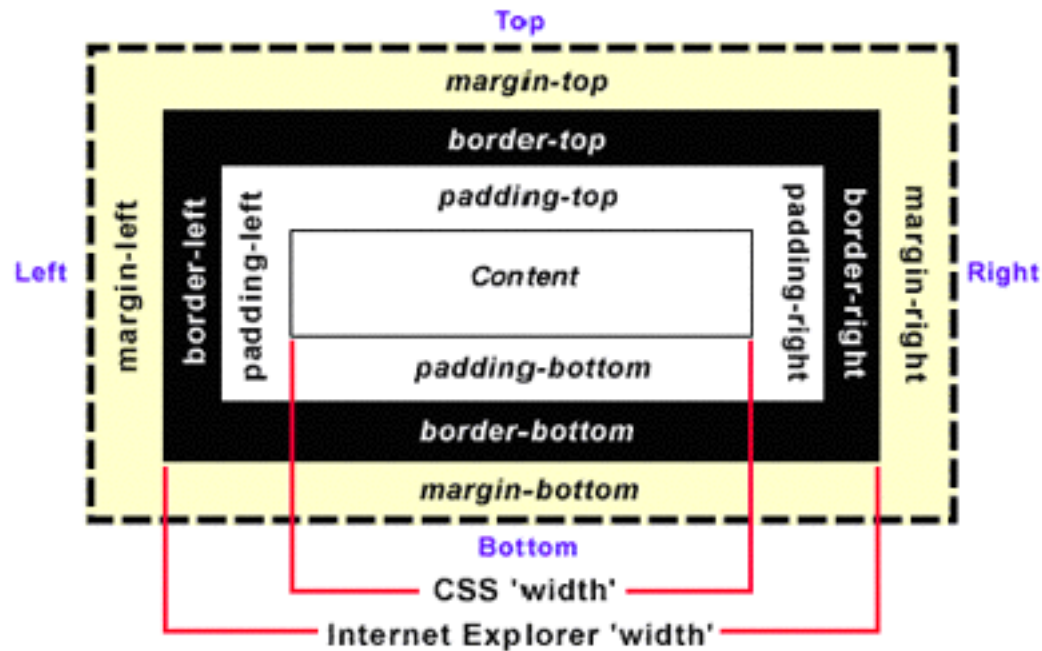
This is quite *a lot* of info for one presentation!

Nice!

# Box Model

# Box Model

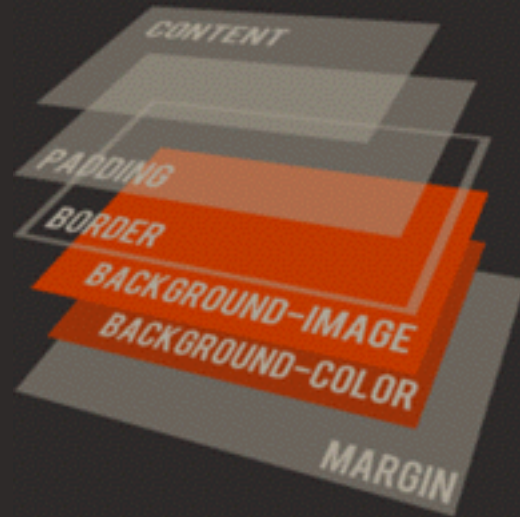
Every element in web design is a rectangular box. The size of the box calculated like this:





# Box Model

One more diagram ...





# Box Model

The size of the box is calculated like this:

<b>Width</b>	$\text{width} + \text{padding-left} + \text{padding-right} + \text{border-left} + \text{border-right}$
<b>Height</b>	$\text{height} + \text{padding-top} + \text{padding-bottom} + \text{border-top} + \text{border-bottom}$

## **The problem**

Padding and Borders increase dimensions of block elements

## **The solution**

Do not set padding & borders on the same axis with set dimensions

## The Problem?!

## Why is it a problem?

# Layout and Positioning

# Float property

```
#box { float: left | right | none; }
```

```
#box2 { clear: left | right | both; }
```

# Position property

Allows positioning of any element based on a system of coordinates

```
#box {  
  position: absolute | relative | static;  
  left: 0; top: 0; right: 0; bottom: 0;  
}
```

# Position property

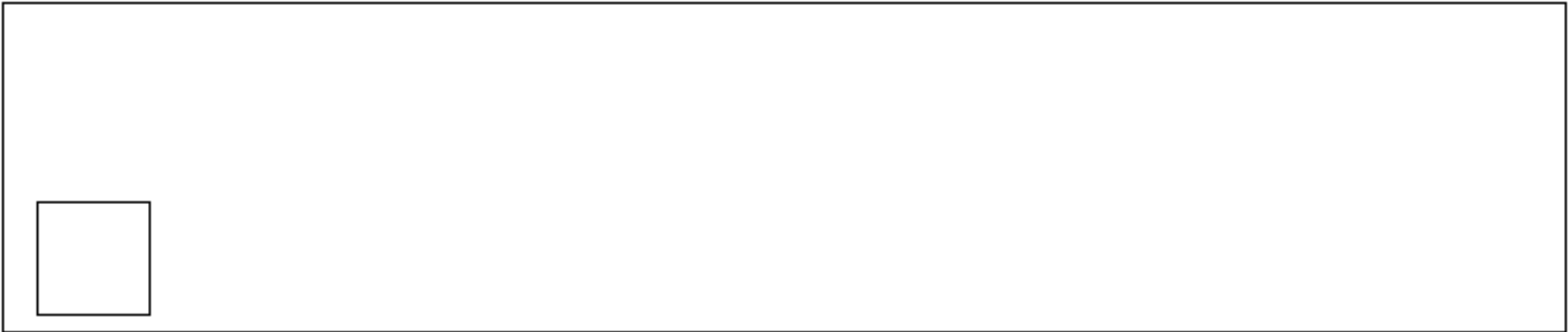
```
#box { position: relative; top: 10px; left: 20px; }
```





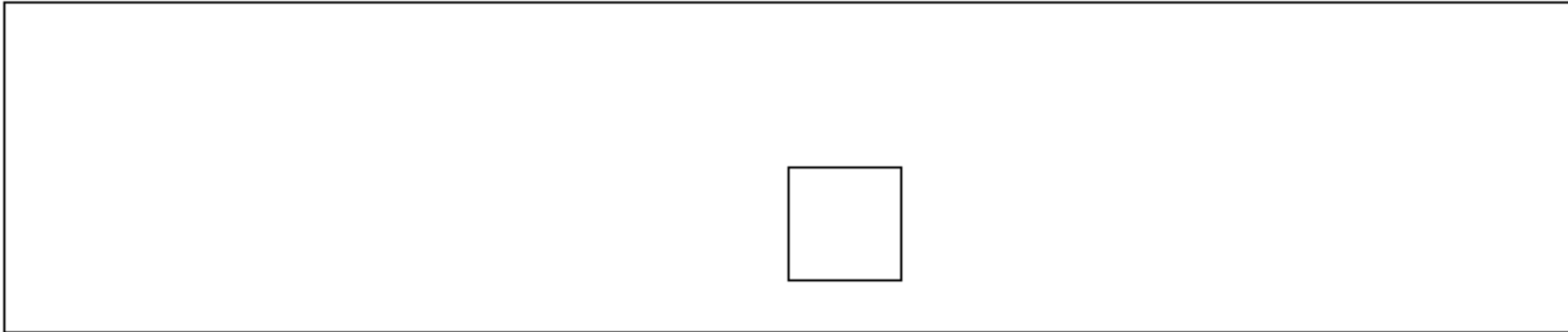
# Position property

```
#box { position: absolute; bottom: 10px; left: 20px; }
```



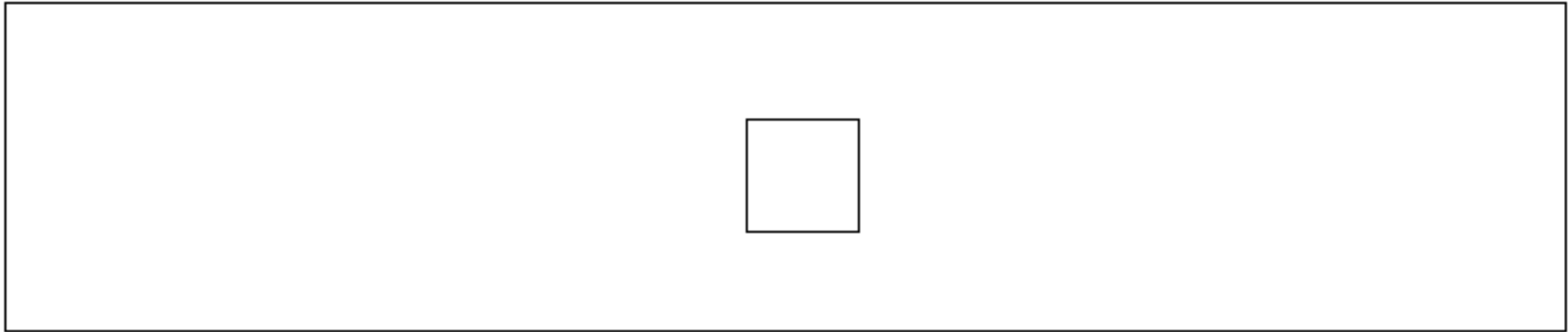
# Position property

```
#box { position: absolute; top: 50%; left: 50%; }
```

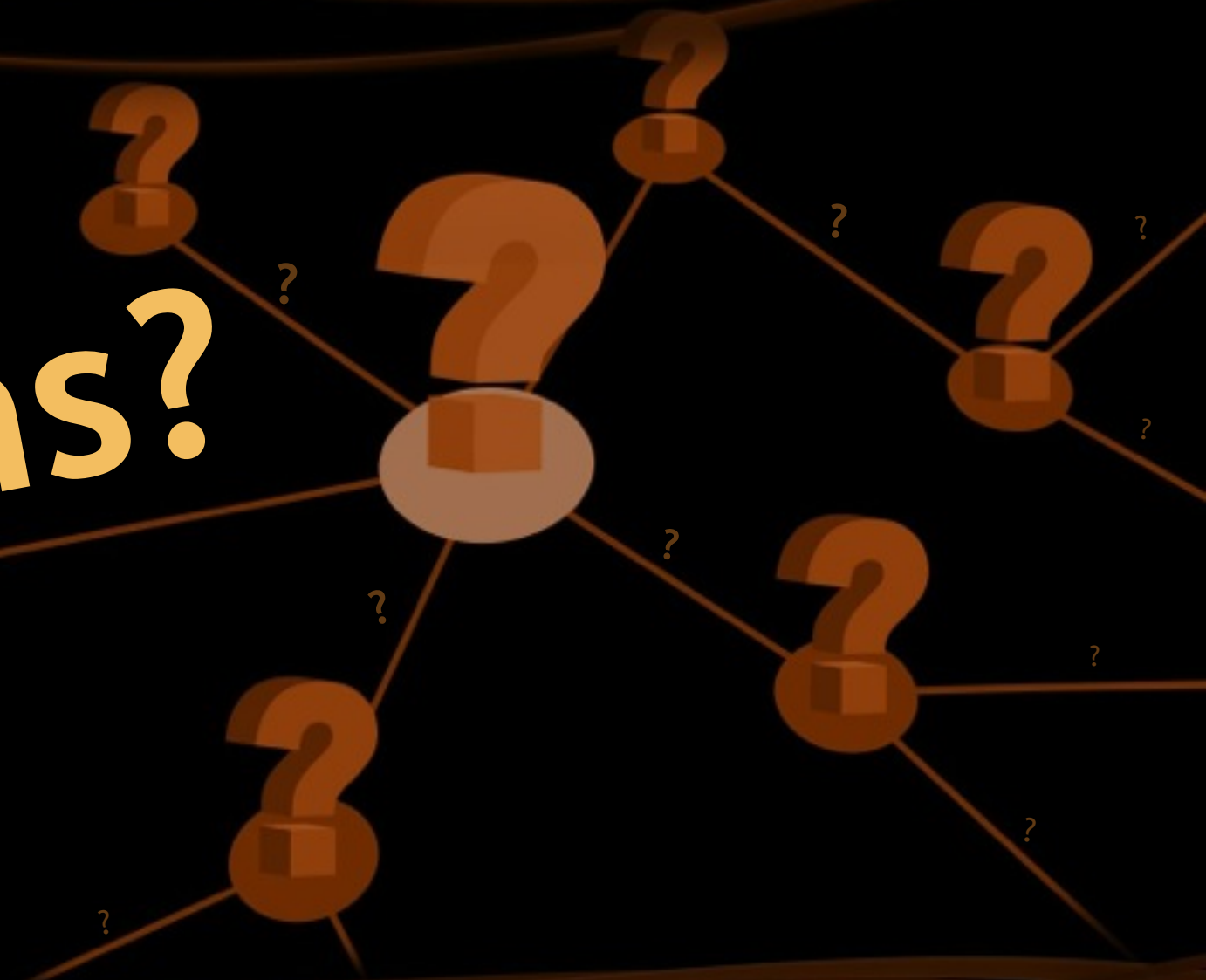


# Position property

```
#box {  
  position: absolute;  
  top: 50%; left: 50%;  
  margin: -25px 0 0 -25px;  
}
```

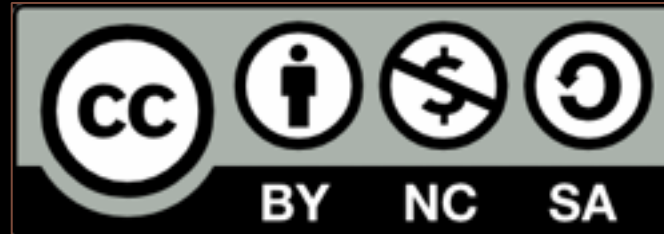


# Questions?



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