



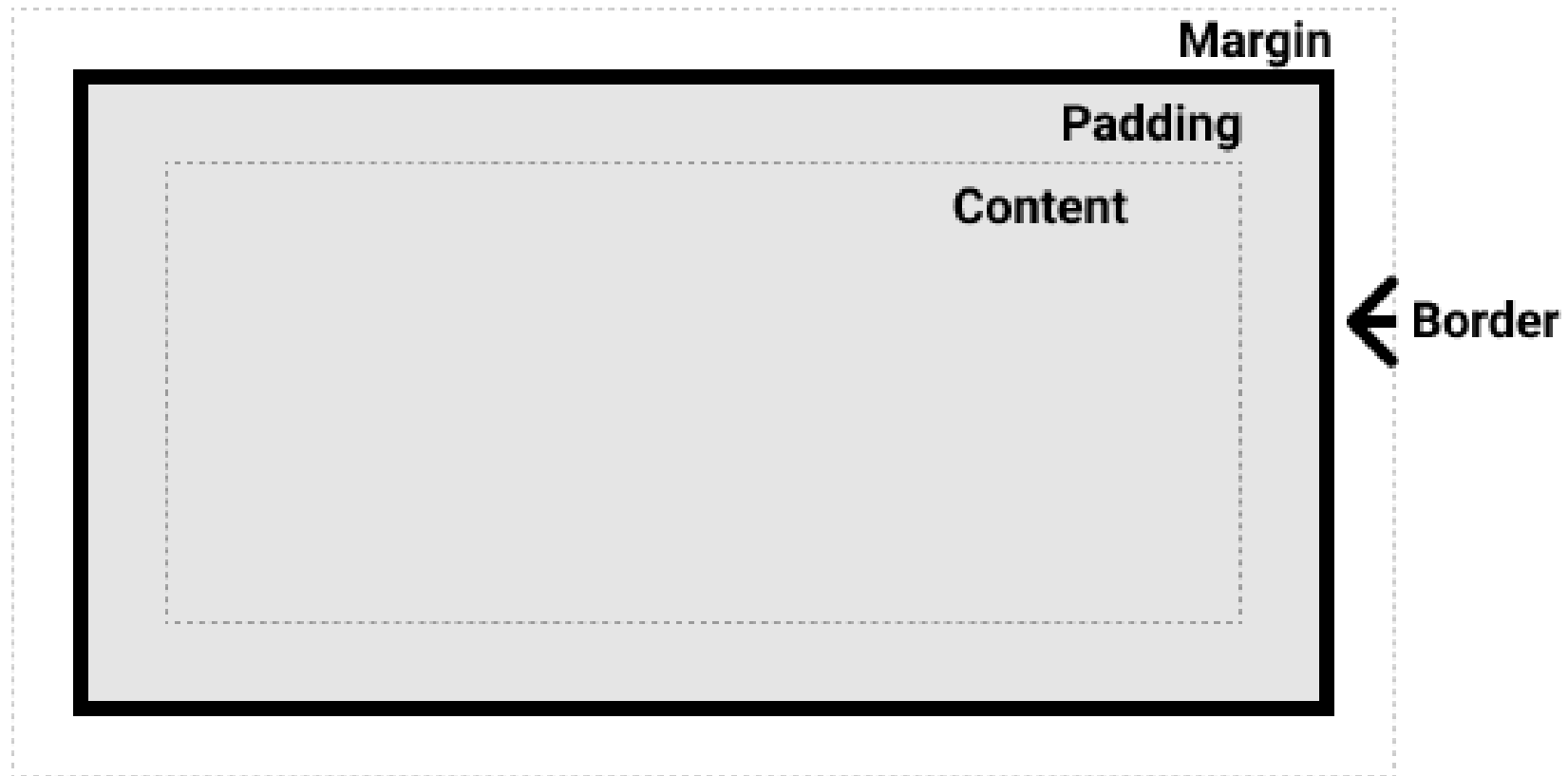
기초 웹

22 Winter CNU 기초 스터디

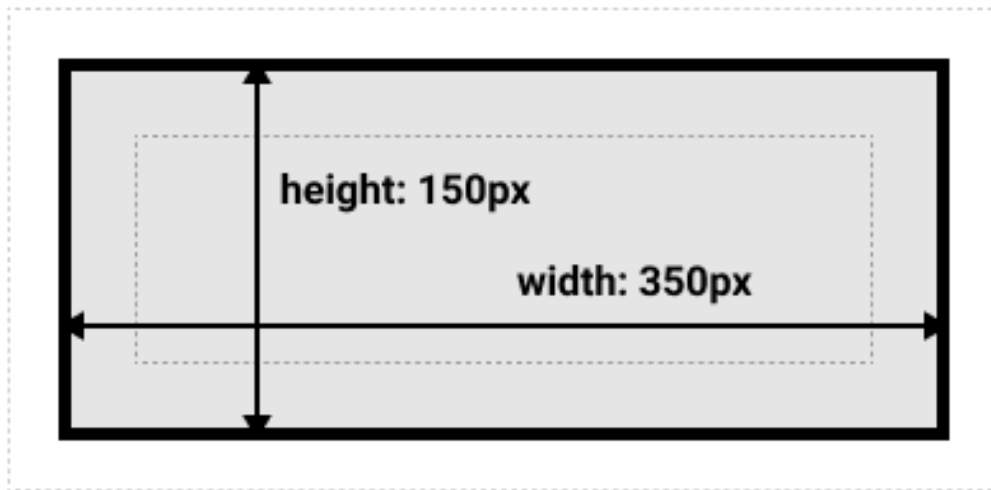
21 남정연

21 박준서

CSS Box!

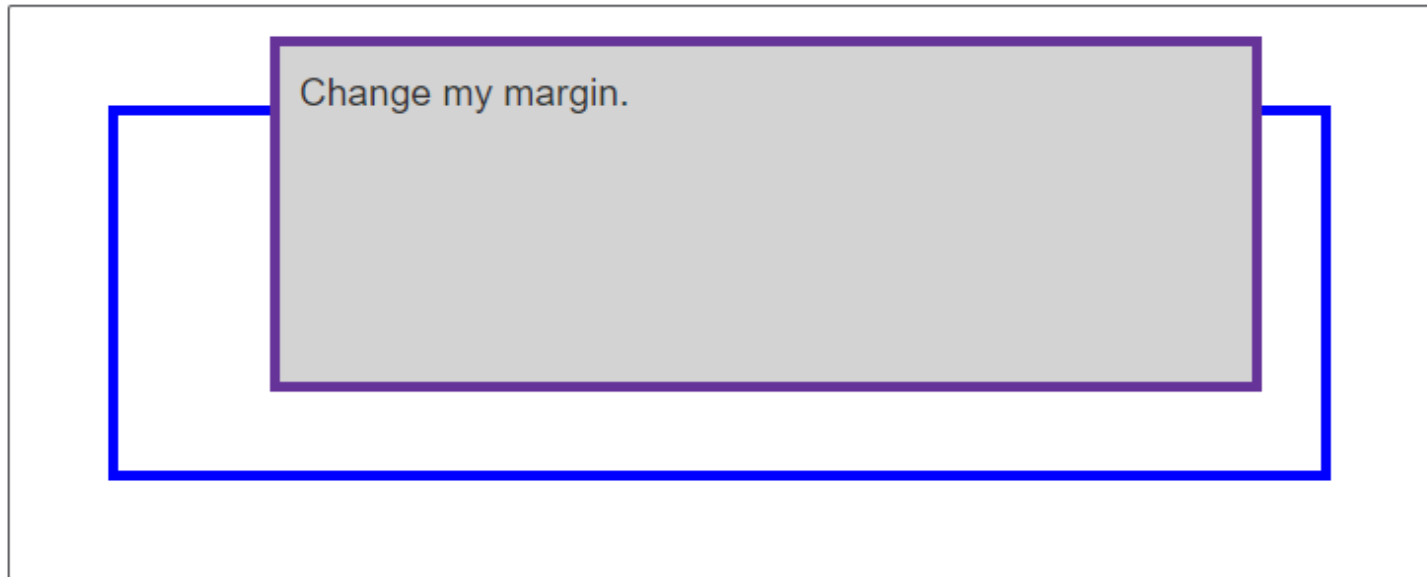


CSS Box!



```
.box {  
  box-sizing: border-box;  
}
```

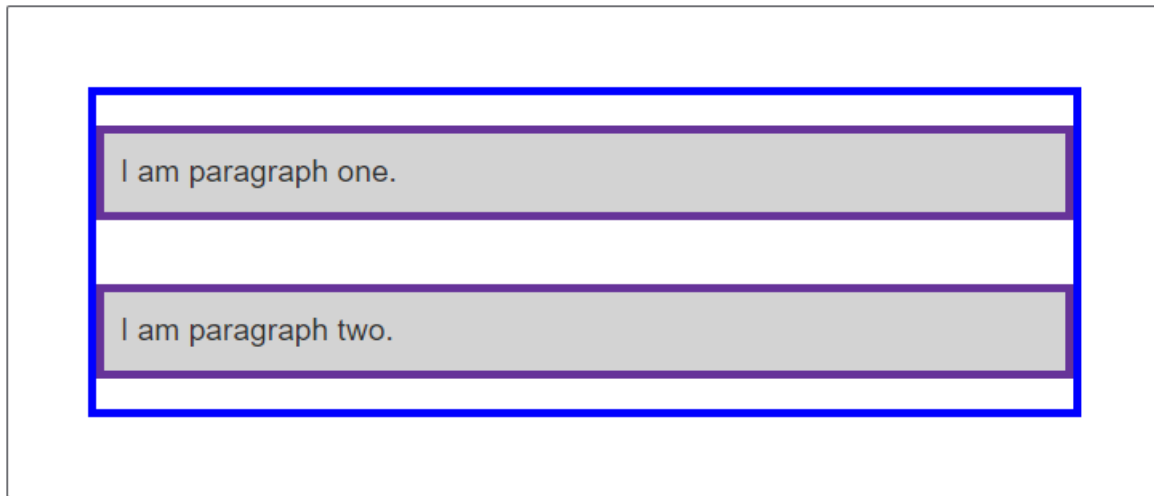
CSS Margin



```
.box {  
  margin-top: -40px;  
  margin-right: 30px;  
  margin-bottom: 40px;  
  margin-left: 4em;  
}
```

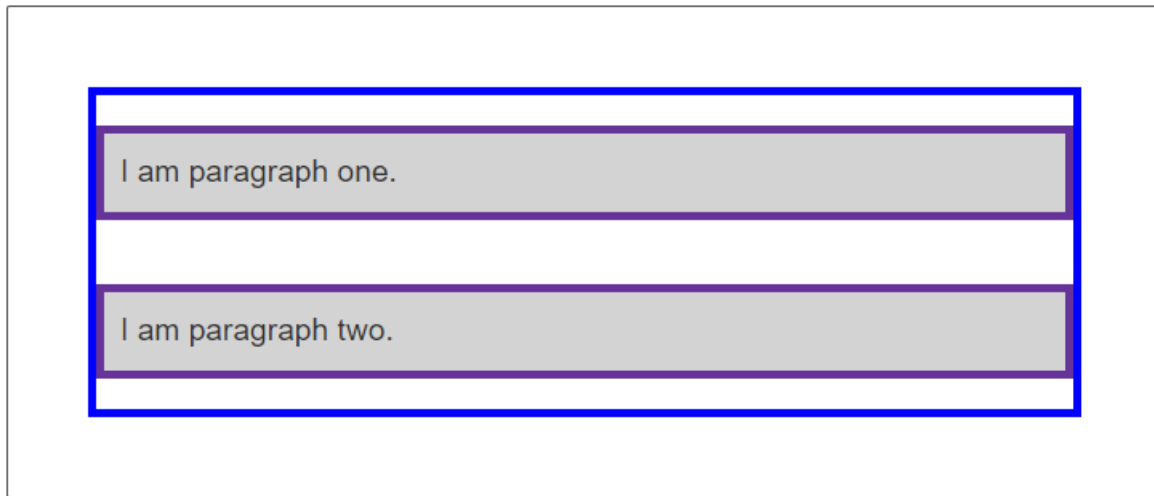
```
<div class="container">  
  <div class="box">Change my margin.</div>  
</div>
```

Margin Collapsing



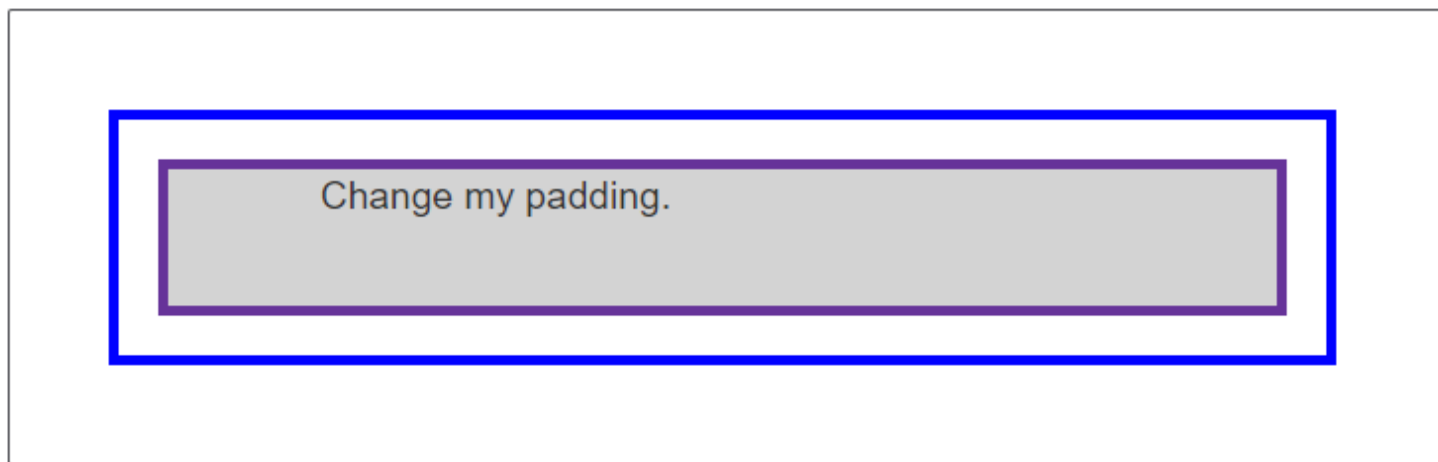
```
.one {  
  margin-bottom: 40px;  
}  
  
.two {  
  margin-top: 10px;  
}
```

Margin Collapsing



```
.one {  
  margin-bottom: 40px;  
}  
  
.two {  
  margin-top: 30px;  
}
```

CSS Padding



```
.box {  
  padding-top: 0;  
  padding-right: 30px;  
  padding-bottom: 40px;  
  padding-left: 4em;  
}
```

```
.container {  
  padding: 20px;  
}
```

```
<div class="container">  
  <div class="box">Change my padding.</div>  
</div>
```

CSS Border

We can set a border for all four sides of a box with `border`:

```
.box {  
  border: 1px solid black;  
}
```



Or we can target one edge of the box, for example:

```
.box {  
  border-top: 1px solid black;  
}
```



CSS Border

Borders

Try changing the borders.

```
.box {  
  border: 10px solid rebeccapurple;  
  border-radius: 1em;  
  border-top-right-radius: 10% 30%;  
}
```

```
<div class="box">  
  <h2>Borders</h2>  
  <p>Try changing the borders.</p>  
</div>
```

CSS background-color

Background Colors

Try changing the background colors.

```
.box {  
  background-color: #567895;  
}  
  
h2 {  
  background-color: black;  
  color: white;  
}  
  
span {  
  background-color: rgba(255,255,255,.5);  
}
```

```
<div class="box">  
  <h2>Background Colors</h2>  
  <p>Try changing the background <span>colors</span>.</p>  
</div>
```

CSS Background Shorthand



- A `background-color` may only be specified after the final comma.
- The value of `background-size` may only be included immediately after `background-position`, separated with the '/' character, like this: `center/80%`.

```
.box {  
  background:  
    linear-gradient(105deg, rgba(255,255,255,.2) 39%, rgba(51,56,57,1) 96%) center center /  
    400px 200px no-repeat,  
    url(big-star.png) center no-repeat,  
    rebeccapurple;  
}
```

CSS Shorthands

For example, this one line of code:

```
/* In 4-value shorthands like padding and margin, the values are applied  
   in the order top, right, bottom, left (clockwise from the top). There are also other  
   shorthand types, for example 2-value shorthands, which set padding/margin  
   for top/bottom, then left/right */  
padding: 10px 15px 15px 5px;
```

is equivalent to these four lines of code:

```
padding-top: 10px;  
padding-right: 15px;  
padding-bottom: 15px;  
padding-left: 5px;
```

CSS Shorthands

This one line:

```
background: red url(bg-graphic.png) 10px 10px repeat-x fixed;
```

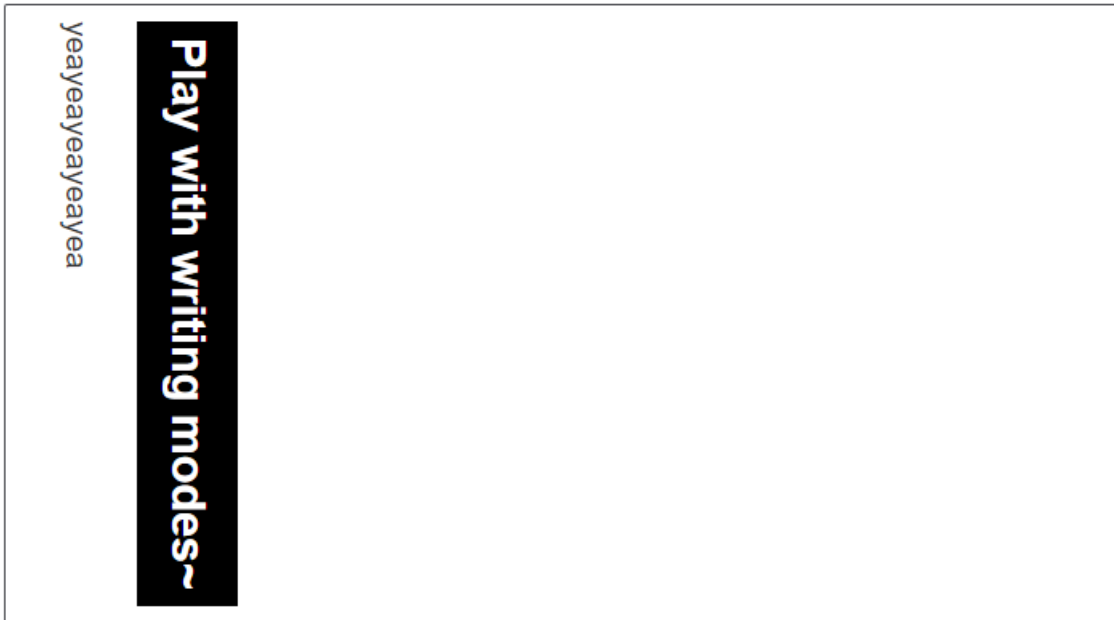


is equivalent to these five lines:

```
background-color: red;  
background-image: url(bg-graphic.png);  
background-position: 10px 10px;  
background-repeat: repeat-x;  
background-attachment: fixed;
```



CSS Writing Mode



```
div {  
  writing-mode: vertical-rl;  
}
```

```
<div>  
  <h1>Play with writing modes~</h1>  
  <p>yeayeayeaye</p>  
</div>
```

CSS Writing Mode

Heading

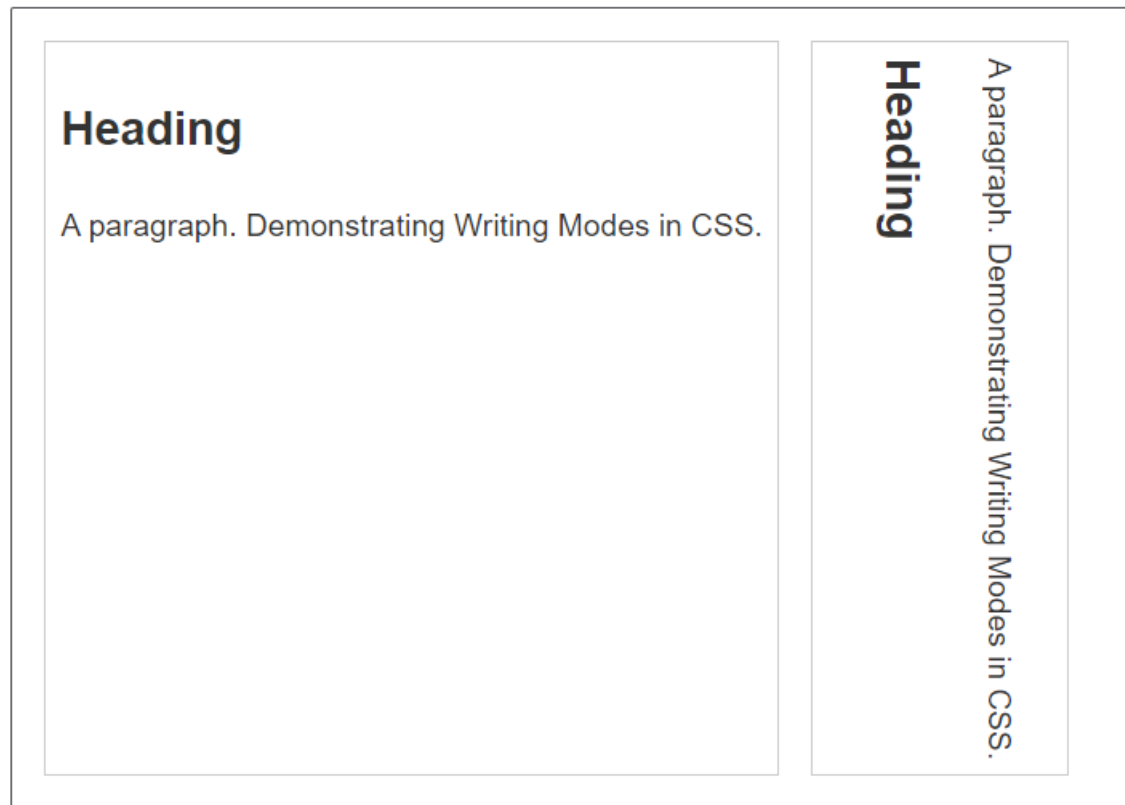
A paragraph. Demonstrating Writing Modes in CSS.

Heading

A paragraph. Demonstrating Writing Modes in CSS.

```
.horizontal {  
  writing-mode: horizontal-tb;  
}  
  
.vertical {  
  writing-mode: vertical-rl;  
}
```

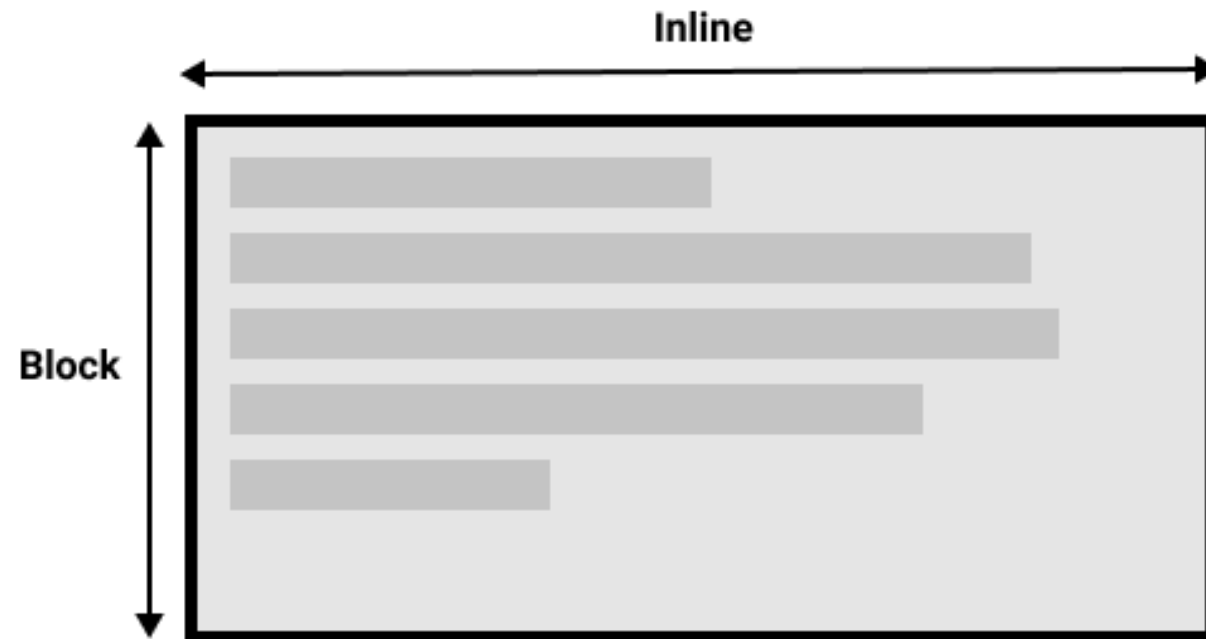
CSS Writing Mode



```
.horizontal {  
  writing-mode: horizontal-tb;  
}  
  
.vertical {  
  writing-mode: vertical-rl;  
}
```

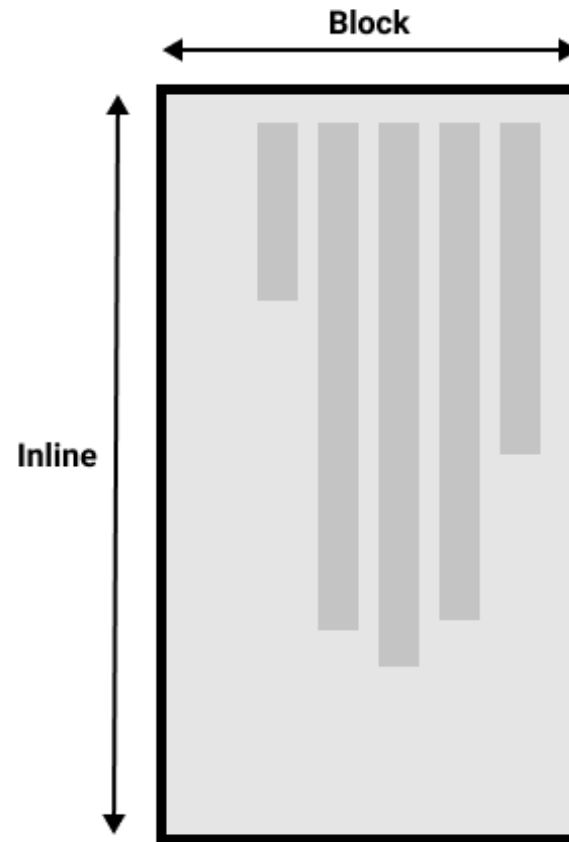

CSS Writing Mode

This figure shows the two dimensions when in a horizontal writing mode.

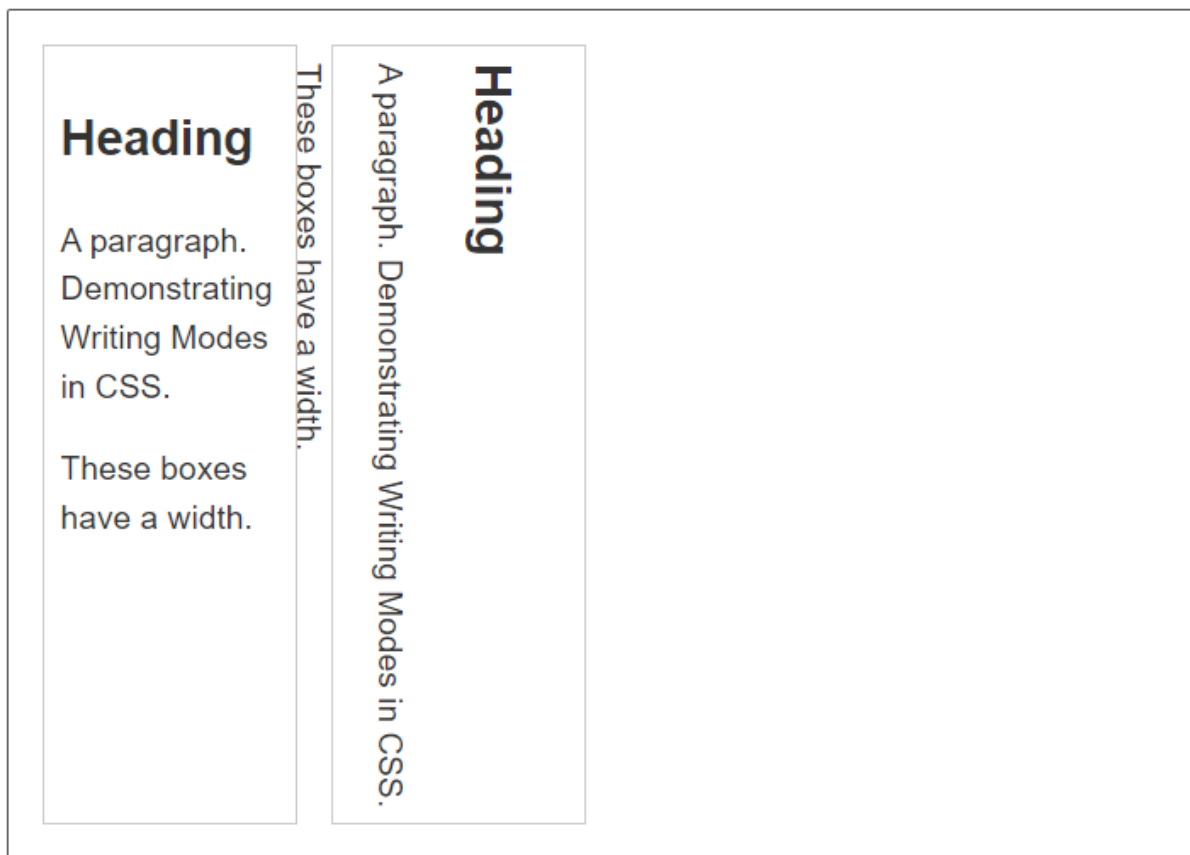


CSS Writing Mode

This figure shows the two dimensions in a vertical writing mode.



Logical Properties



```
.box {  
  width: 150px;  
}  
  
.horizontal {  
  writing-mode: horizontal-tb;  
}  
  
.vertical {  
  writing-mode: vertical-rl;  
}
```

```
<div class="wrapper">  
  <div class="box horizontal">  
    <h2>Heading</h2>  
    <p>A paragraph. Demonstrating Writing Modes in CSS.</p>  
    <p>These boxes have a width.</p>  
  </div>  
  <div class="box vertical">  
    <h2>Heading</h2>  
    <p>A paragraph. Demonstrating Writing Modes in CSS.</p>  
    <p>These boxes have a width.</p>  
  </div>  
</div>
```

Logical Properties

Heading

A paragraph.
Demonstrating
Writing Modes
in CSS.

These boxes
have inline-
size.

Heading

A paragraph.
Demonstrating
Writing Modes
in CSS.

These boxes
have inline-
size.

```
.box {  
  inline-size: 150px;  
}  
  
.horizontal {  
  writing-mode: horizontal-tb;  
}  
  
.vertical {  
  writing-mode: vertical-rl;  
}
```

Logical Properties

Heading

A paragraph. Demonstrating Writing Modes in CSS.

These boxes have inline-size.

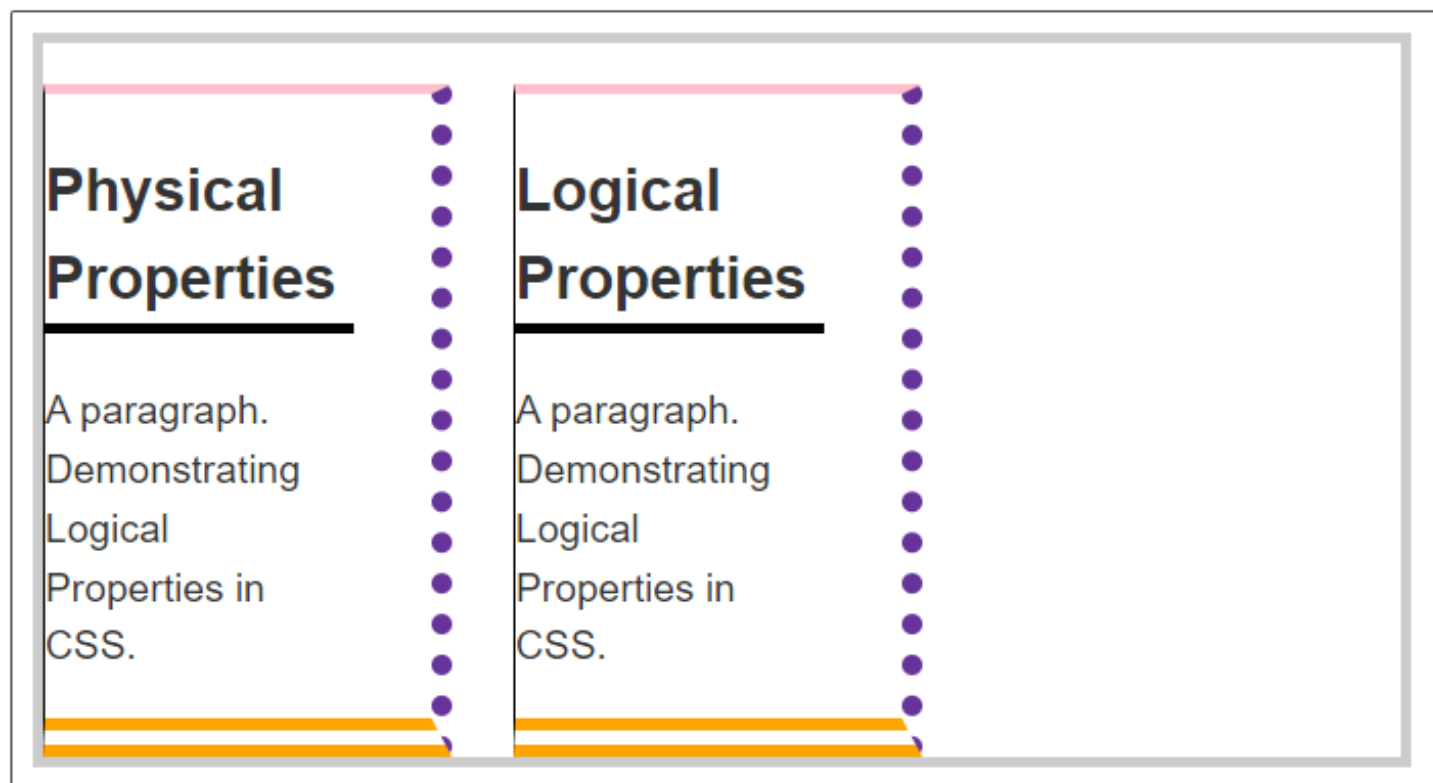
Heading

A paragraph. Demonstrating Writing Modes in CSS.

These boxes have inline-size.

```
.box {  
  block-size: 150px;  
}  
  
.horizontal {  
  writing-mode: horizontal-tb;  
}  
  
.vertical {  
  writing-mode: vertical-rl;  
}
```

Logical Properties



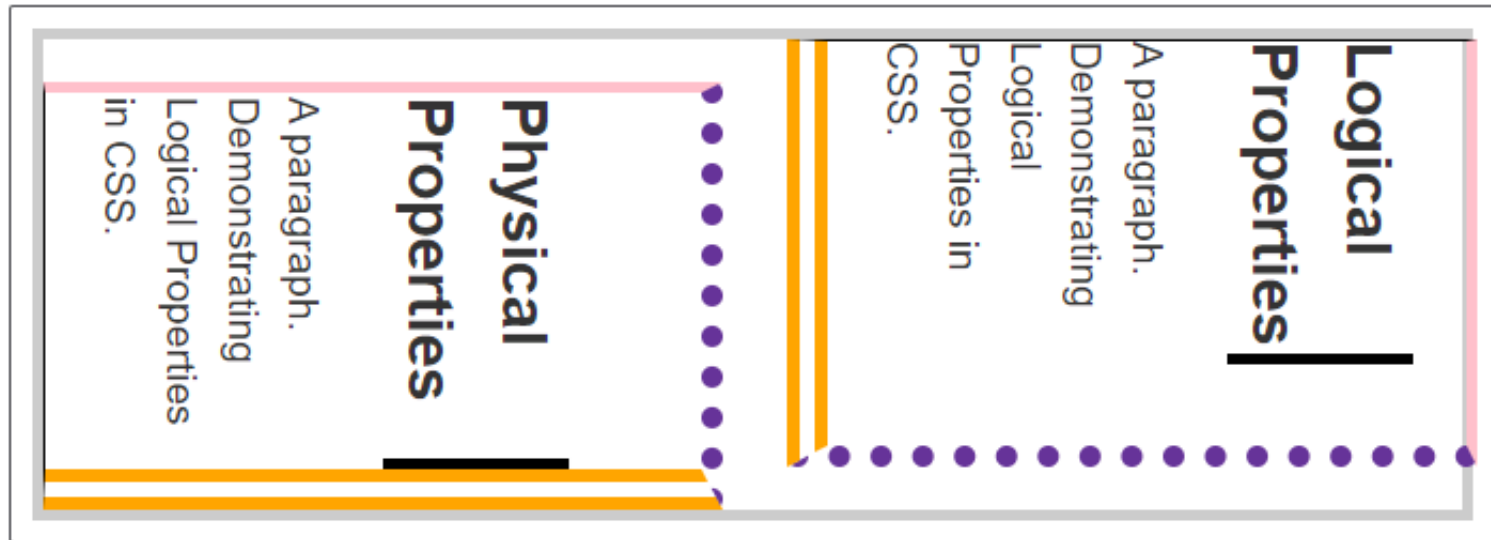
```
.box {
  inline-size: 200px;
  writing-mode: horizontal-tb;
}

.logical {
  margin-block-start: 20px;
  padding-inline-end: 2em;
  padding-block-start: 2px;
  border-block-start: 5px solid pink;
  border-inline-end: 10px dotted rebeccapurple;
  border-block-end: 1em double orange;
  border-inline-start: 1px solid black;
}

.physical {
  margin-top: 20px;
  padding-right: 2em;
  padding-top: 2px;
  border-top: 5px solid pink;
  border-right: 10px dotted rebeccapurple;
  border-bottom: 1em double orange;
  border-left: 1px solid black;
}

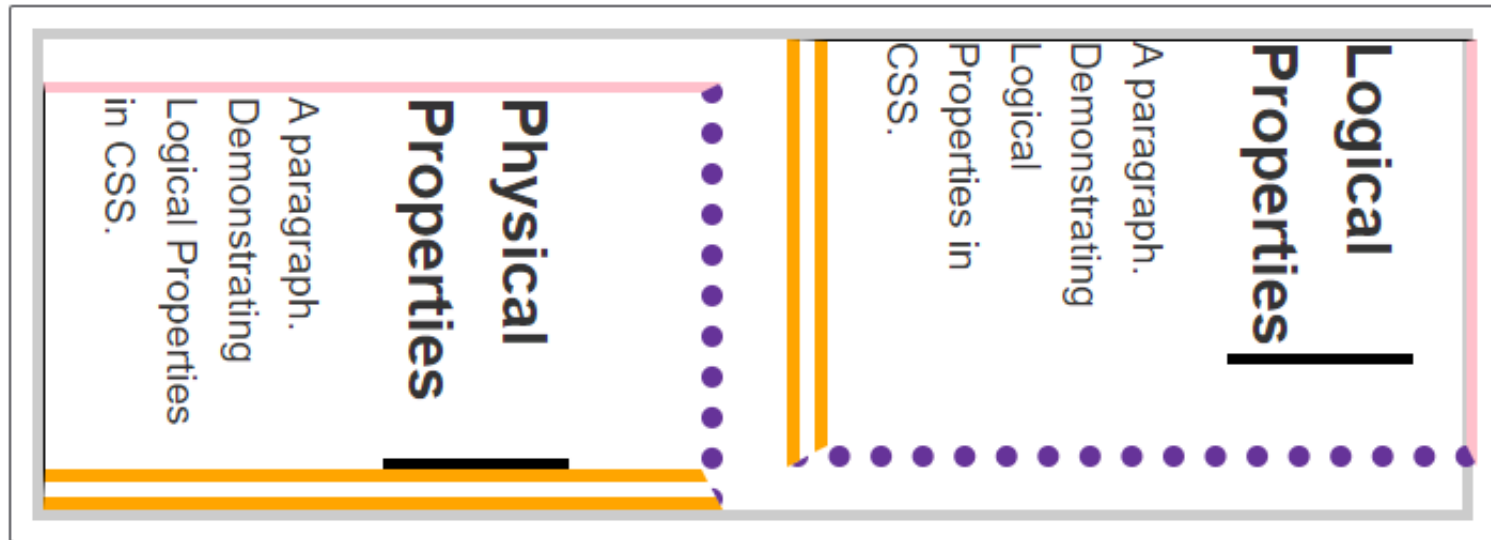
h2 {
  border-bottom: 5px solid black;
}
```

Logical Properties



```
.box {  
  inline-size: 200px;  
  writing-mode: vertical-rl;  
}  
  
.logical {  
  margin-block-start: 20px;  
  padding-inline-end: 2em;  
  padding-block-start: 2px;  
  border-block-start: 5px solid pink;  
  border-inline-end: 10px dotted rebeccapurple;  
  border-block-end: 1em double orange;  
  border-inline-start: 1px solid black;  
}  
  
.physical {  
  margin-top: 20px;  
  padding-right: 2em;  
  padding-top: 2px;  
  border-top: 5px solid pink;  
  border-right: 10px dotted rebeccapurple;  
  border-bottom: 1em double orange;  
  border-left: 1px solid black;  
}  
  
h2 {  
  border-bottom: 5px solid black;  
}
```

Logical Properties



```
.box {  
  inline-size: 200px;  
  writing-mode: vertical-rl;  
}  
  
.logical {  
  margin-block-start: 20px;  
  padding-inline-end: 2em;  
  padding-block-start: 2px;  
  border-block-start: 5px solid pink;  
  border-inline-end: 10px dotted rebeccapurple;  
  border-block-end: 1em double orange;  
  border-inline-start: 1px solid black;  
}  
  
.physical {  
  margin-top: 20px;  
  padding-right: 2em;  
  padding-top: 2px;  
  border-top: 5px solid pink;  
  border-right: 10px dotted rebeccapurple;  
  border-bottom: 1em double orange;  
  border-left: 1px solid black;  
}  
  
h2 {  
  border-bottom: 5px solid black;  
}
```


CSS Overflow

This box has a height and a width. This means that if there is too much content to be displayed within the assigned height, there will be an overflow.

CSS Overflow

Overflow

CSS Overflow

This box has a height
and a width. This
means that if there is
~~too much content to be~~

This content is outside of the box.

```
.box {  
  border: 1px solid #333333;  
  width: 200px;  
  height: 100px;  
  overflow: hidden;  
}
```

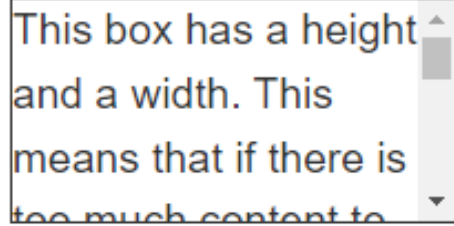
CSS Overflow

This box has a height
and a width. This
means that if there is

This content is outside of the box.

```
.box {  
  border: 1px solid #333333;  
  width: 200px;  
  height: 100px;  
  overflow: scroll;  
}
```

CSS Overflow



This box has a height
and a width. This
means that if there is
too much content to

This content is outside of the box.

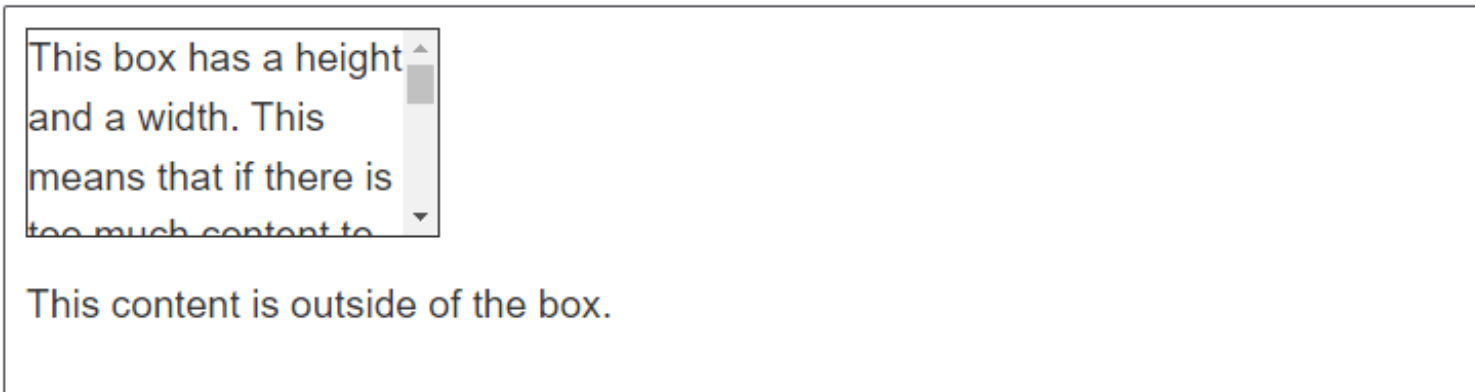
```
.box {  
  border: 1px solid #333333;  
  width: 200px;  
  height: 100px;  
  overflow-y: scroll;  
}
```

CSS Overflow



```
.word {  
  border: 5px solid #333333;  
  width: 100px;  
  font-size: 250%;  
  overflow-x: scroll;  
}
```

CSS Overflow



```
.box {  
  border: 1px solid #333333;  
  width: 200px;  
  height: 100px;  
  overflow: auto;  
}
```

CSS Absolute length 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 = 1/72th of 1in
px	Pixels	1px = 1/96th of 1in

CSS Relative length units

Unit	Relative to
em	Font size of the parent, in the case of typographical properties like font-size , and font size of the element itself, in the case of other properties like width .
ex	x-height of the element's font.
ch	The advance measure (width) of the glyph "0" of the element's font.
rem	Font size of the root element.
lh	Line height of the element.
vw	1% of the viewport's width.
vh	1% of the viewport's height.
vmin	1% of the viewport's smaller dimension.
vmax	1% of the viewport's larger dimension.

CSS Relative length units

- One
 - Two
 - Three
 - Three A
 - Three B
 - Three B 2
-
- One
 - Two
 - Three
 - Three A
 - Three B
 - Three B 2

```
html {  
  font-size: 16px;  
}  
  
.ems li {  
  font-size: 1.3em;  
}  
  
.rem li {  
  font-size: 1.3rem;  
}
```

CSS Relative length units

- One
 - Two
 - Three
 - Three A
 - Three B
 - Three B 2
-
- One
 - Two
 - Three
 - Three A
 - Three B
 - Three B 2

```
html {  
  font-size: 16px;  
}  
  
.ems li {  
  font-size: 1.3em;  
}  
  
.rem li {  
  font-size: 1.3rem;  
}
```

CSS Percentage value

I am 200px wide

I am 40% wide

I am 200px wide

I am 40% wide

```
.wrapper {  
  width: 400px;  
  border: 5px solid rebeccapurple;  
}  
  
.px {  
  width: 200px;  
}  
  
.percent {  
  width: 40%;  
}
```

CSS Percentage value

- One
- Two
- Three
 - Three A
 - Three B
 - Three B 2

```
li {  
  font-size: 80%;  
}
```

```
<ul>  
  <li>One</li>  
  <li>Two</li>  
  <li>Three  
    <ul>  
      <li>Three A</li>  
      <li>Three B  
        <ul>  
          <li>Three B 2</li>  
        </ul>  
      </li>  
    </ul>  
  </li>  
</ul>
```

CSS Percentage value

- One
- Two
- Three
 - Three A
 - Three B
 - Three B 2

```
li {  
  font-size: 80%;  
}
```

```
<ul>  
  <li>One</li>  
  <li>Two</li>  
  <li>Three  
    <ul>  
      <li>Three A</li>  
      <li>Three B  
        <ul>  
          <li>Three B 2</li>  
        </ul>  
      </li>  
    </ul>  
  </li>  
</ul>
```

CSS Color value

#02798b

#c55da1

#128a7d

Interactive editor

```
.one {  
  background-color: #02798b;  
}  
  
.two {  
  background-color: #c55da1;  
}  
  
.three {  
  background-color: #128a7d;  
}
```

CSS Color value

rgb(2, 121, 139)

rgb(197, 93, 161)

rgb(18, 138, 125)

Interactive editor

```
.one {  
  background-color: rgb(2, 121, 139);  
}  
  
.two {  
  background-color: rgb(197, 93, 161);  
}  
  
.three {  
  background-color: rgb(18, 138, 125);  
}
```


CSS Color value



Interactive editor

```
.one {  
  background-color: rgba(2, 121, 139, .3);  
}  
  
.two {  
  background-color: rgba(197, 93, 161, .7);  
}  
  
.three {  
  background-color: rgba(18, 138, 125, .9);  
}
```

CSS Color value

hsl(188, 97%, 28%)

hsl(321, 47%, 57%)

hsl(174, 77%, 31%)

Interactive editor

```
.one {  
  background-color: hsl(188, 97%, 28%);  
}  
  
.two {  
  background-color: hsl(321, 47%, 57%);  
}  
  
.three {  
  background-color: hsl(174, 77%, 31%);  
}
```

CSS Color value



Interactive editor

```
.one {  
  background-color: hsla(188, 97%, 28%, .3);  
}  
  
.two {  
  background-color: hsla(321, 47%, 57%, .7);  
}  
  
.three {  
  background-color: hsla(174, 77%, 31%, .9);  
}
```

CSS Color value



Interactive editor

```
.one {  
  background-color: hsla(188, 97%, 28%, .3);  
}  
  
.two {  
  background-color: hsla(321, 47%, 57%, .7);  
}  
  
.three {  
  background-color: hsla(174, 77%, 31%, .9);  
}
```

CSS calc()

My width is
calculated.

```
.wrapper {  
  width: 400px;  
}  
  
.box {  
  width: calc(20% + 100px);  
}
```

```
<div class="wrapper">  
  <div class="box">My width is calculated.</div>  
</div>
```

CSS Sizing

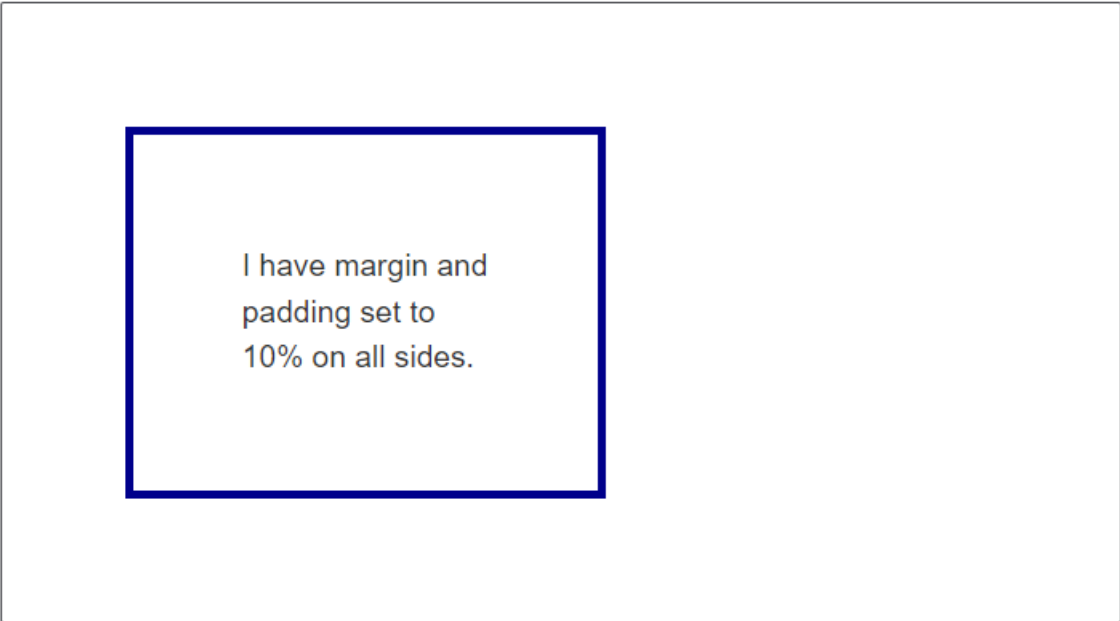
I have a percentage width.

Interactive editor

```
.box {  
  border: 5px solid darkblue;  
  width: 50%;  
}
```

```
<div class="box">  
  I have a percentage width.  
</div>
```

CSS Sizing



I have margin and padding set to 10% on all sides.

```
.box {  
  border: 5px solid darkblue;  
  width: 300px;  
  margin: 10%;  
  padding: 10%;  
}
```

```
<div class="box">  
  I have margin and padding set to 10% on all sides.  
</div>
```

When you use margin and padding set in percentages, the value is calculated from the **inline size** of the containing block — therefore the width when working in a horizontal language. In our example, all of the margins and padding are 10% of the width. This means you can have equal-sized margins and padding all around the box. This is a fact worth remembering if you do use percentages in this way.

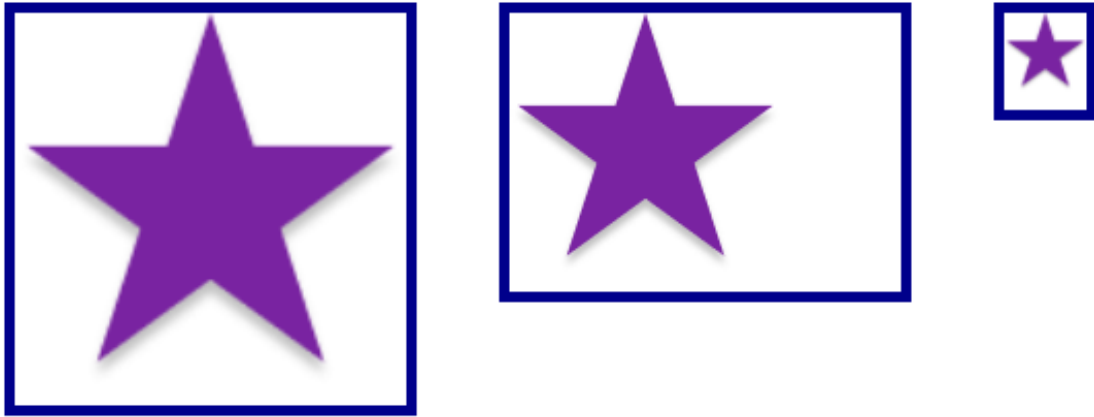
CSS Sizing



These boxes both have a min-height set, this box has content in it which will need more space than the assigned height, and so it grows from the minimum.

```
.box {  
  border: 5px solid darkblue;  
  min-height: 150px;  
  width: 200px;  
}
```

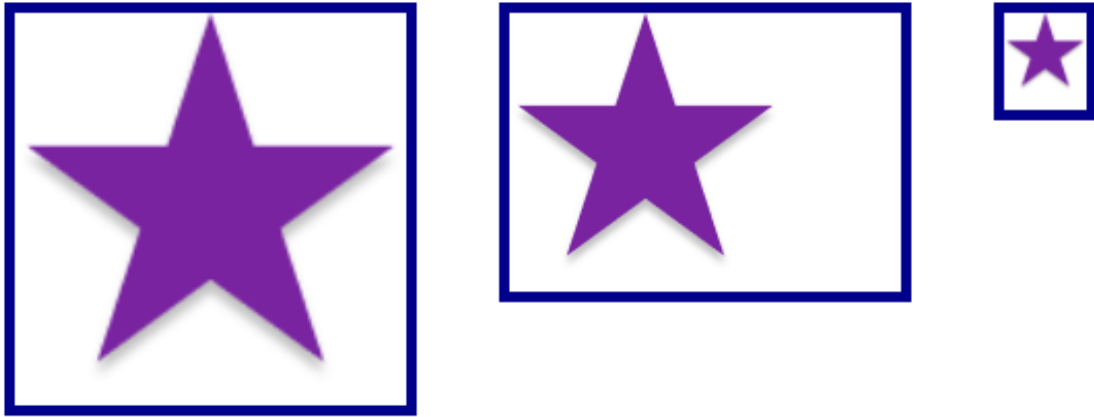

CSS Sizing



```
.box {  
  width: 200px;  
}  
.minibox {  
  width: 50px;  
}  
.width {  
  width: 100%;  
}  
.max {  
  max-width: 100%;  
}
```

```
<div class="wrapper">  
  <div class="box"></div>  
  <div class="box"></div>  
  <div class="minibox"></div>  
</div>
```

CSS Sizing



```
.box {  
  width: 200px;  
}  
.minibox {  
  width: 50px;  
}  
.width {  
  width: 100%;  
}  
.max {  
  max-width: 100%;  
}
```

```
<div class="wrapper">  
  <div class="box"></div>  
  <div class="box"></div>  
  <div class="minibox"></div>  
</div>
```