

# GESTIONE DEL BOX

# Il box model

- Ogni elemento html è contenuto in un box rettangolare
- Le proprietà css sono applicate al box
  - width, height, padding, borders, e margins
- Visualizziamo i box con la proprietà border
  - border: 1px solid black;

## The Back of the New \$20

Have you seen the "Series 2004 \$20 Notes"? The U.S. Treasury has rolled out yet another revamp of the U.S. twenty dollar bill in an effort to stop those pesky counterfeiters once and for all. It features high-tech fake-busting elements like a watermark, a security thread, and color-shifting ink. It also features crappy design.

I'm not going to concern myself here with a critique of the front of the bill (my friend Jeff says "it looks like spilled on it."). It's the back of the note that's driving me crazy.

### Too Many 20s



In particular, it's all those little 20s haphazardly sprinkled in the white space. They are nails-on-a-chalkboard design senses.

Are they supposed to be another security feature? ("They'll NEVER be able to duplicate this \$20... look at those 20s... they're all OVER the place!") Did they let a summer intern at the Bureau of Engraving and Printing design it? ("Hey, let Jimmy try it!") Were they concerned the \$20 bill might be confused with a \$10? ("What this 20 needs is a LOT more 20s.")

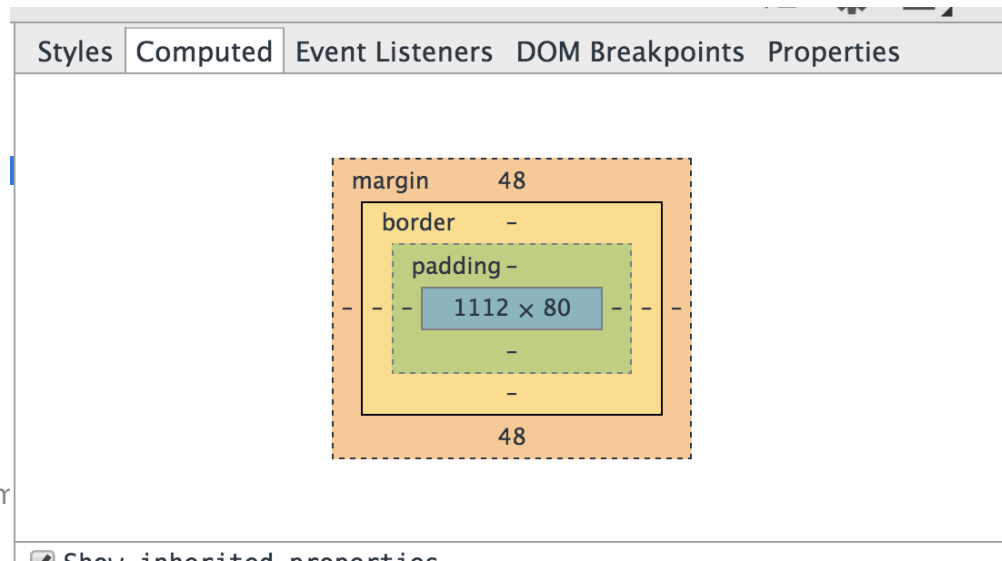
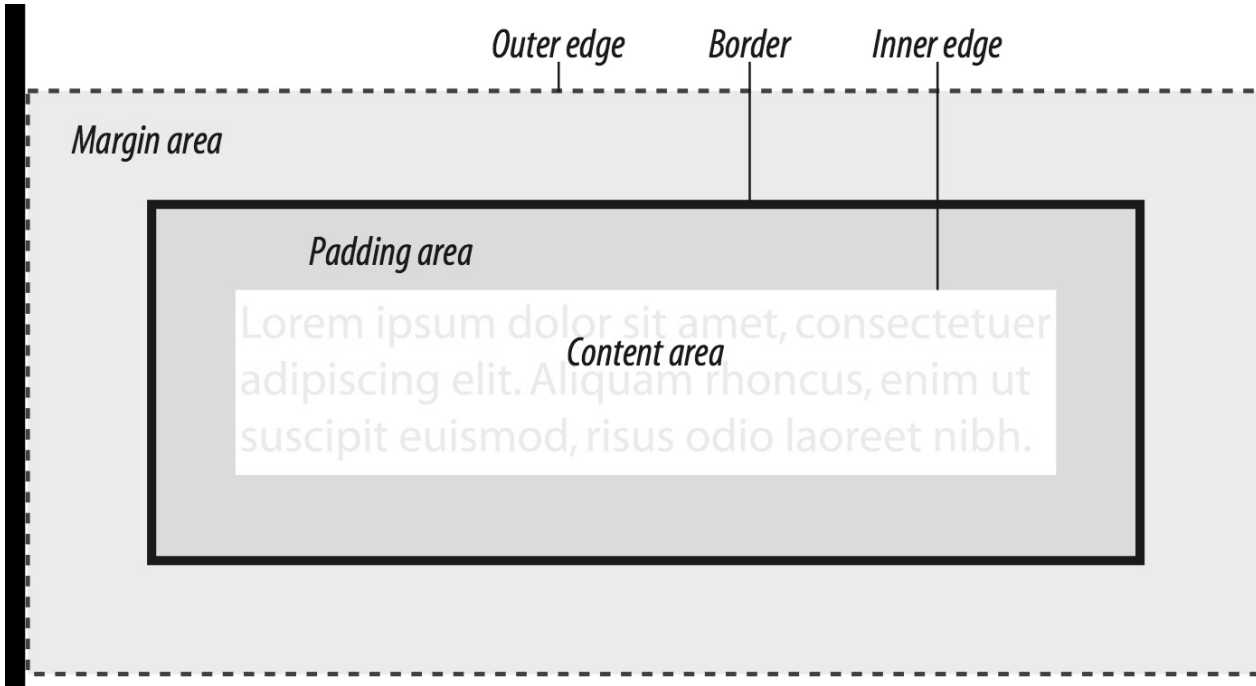
### Connect-the-Dots

There must be more to it. My theory: the new 20s contain subliminal connect-the-dots messages, like tiny constellations. So, perhaps the 20s connect to form a secret message designed to stimulate the economy ("SPEND MORE") or boost patriotism ("WE'RE NO.1").

I'm not sure I've successfully cracked the code, so I'm asking for your help. I encourage you all to get a new \$20 bill, connect the dots to find the message on the back (pencil is best), and mail it to me for review. Together, we can get to the bottom of this.

concern myself  
the back of the

# Il box degli elementi



Program

Show inherited properties

# Dimensioni

## width

**Values:** *length measurement | percentage | auto | inherit*

**Default:** *auto*

**Applies to:** *block-level elements and replaced inline elements (such as images)*

**Inherits:** *no*

## height

**Values:** *length measurement | percentage | auto | inherit*

**Default:** *auto*

**Applies to:** *block-level elements and replaced inline elements (such as images)*

**Inherits:** *no*

# Padding

## padding-top, padding-right, padding-bottom, padding-left

**Values:** *length measurement | percentage | inherit*

**Default:** *0*

**Applies to:** *all elements except table-row, table-row group, table-header-group, table-footer-group, table-column, and table-column-group*

**Inherits:** *no*

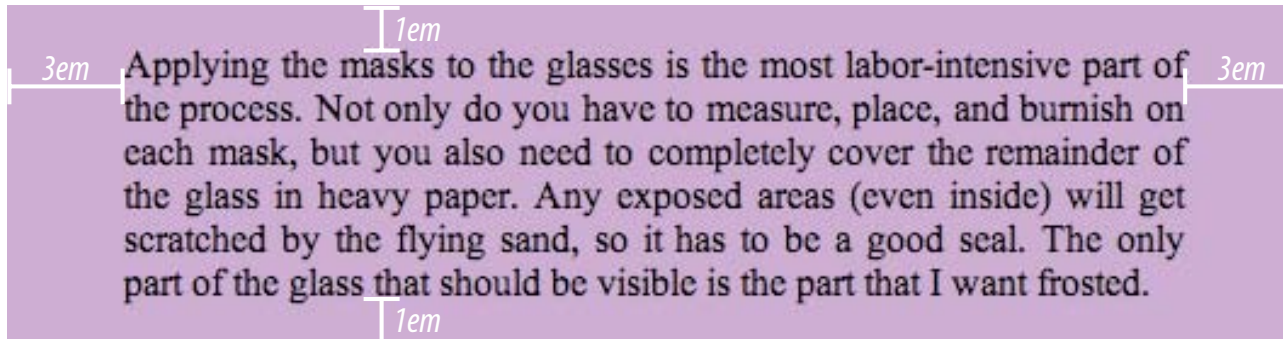
## padding

**Values:** *length measurement | percentage | inherit*

**Default:** *0*

**Applies to:** *all elements*

**Inherits:** *no*



```
blockquote {
  padding-top: 1em;
  padding-right: 3em;
  padding-bottom: 1em;
  padding-left: 3em;
  background-color: #D098D4;
}
```

```
blockquote {
  padding: 1em 3em 1em 3em;
  background-color: #D098D4;
}
```

# Margin

## margin-top, margin-right, margin-bottom, margin-left

**Values:** *length measurement | percentage | auto | inherit*

**Default:** *auto*

**Applies to:** *all elements*

**Inherits:** *no*

## margin

**Values:** *length measurement | percentage | auto | inherit*

**Default:** *auto*

**Applies to:** *all elements except elements with table display types other than table-caption, table, and inline-table*

**Inherits:** *no*

After the blasting, the protective paper and the resist masks needs to be removed from the glasses. A cycle in the dishwasher finishes the job.

```
margin-top: 2em;
margin-right: 250px;
margin-bottom: 1em;
margin-left: 4em;
```

# Border

- Del contorno di un elemento potete specificare:
  - border-style
  - border-width
  - border-color



# Stile del border

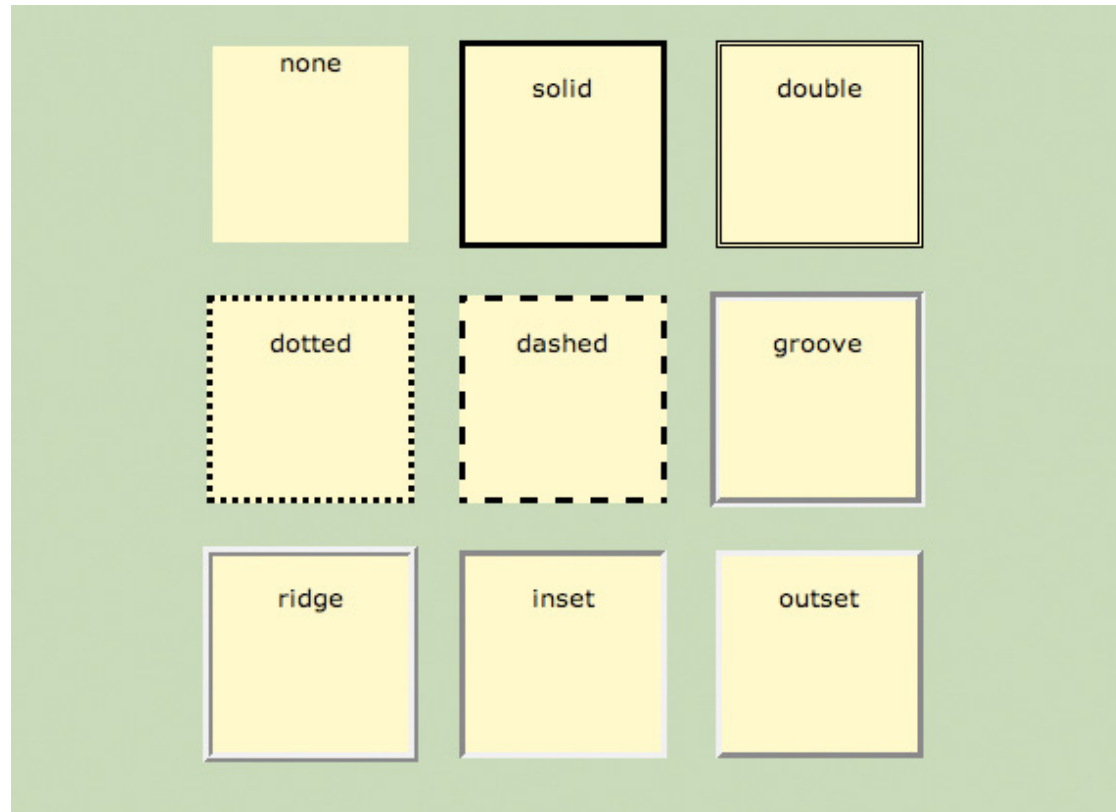
**border-top-style, border-right-style, border-bottom-style, border-left-style**

**Values:** none | dotted | dashed | solid | double | groove | ridge | inset | outset | inherit

**Default:** none

**Applies to:** all elements

**Inherits:** no



## border-style

**Values:** none | dotted | dashed | solid | double | groove | ridge | inset | outset | inherit

**Default:** none

**Applies to:** all elements

**Inherits:** no

# Dimensione del border

**border-top-width, border-right-width,  
border-bottom-width, border-left-width**

**Values:** *length units* | thin | medium | thick | inherit

**Default:** medium

**Applies to:** all elements

**Inherits:** no

**border-width**

**Values:** *length units* | thin | medium | thick | inherit

**Default:** medium

**Applies to:** all elements

**Inherits:** no



```
div#help {
  border-top-width: thin;
  border-right-width: medium;
  border-bottom-width: thick;
  border-left-width: 12px;
  border-style: solid;
  width: 300px;
  height: 100px;
}

div#help {
  border-width: thin medium thick 12px;
  border-style: solid;
  width: 300px;
  height: 100px;
}
```

# Colore del border

**border-top-color, border-right-color,  
border-bottom-color, border-left-color**

**Values:** *color name or RGB value* | transparent | inherit

**Default:** *the value of the color property for the element*

**Applies to:** *all elements*

**Inherits:** *no*

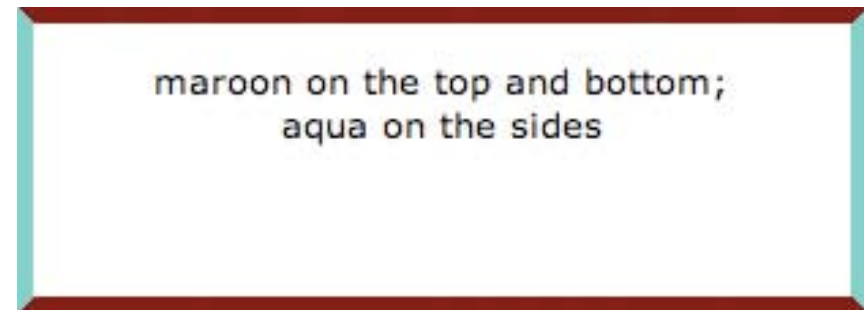
**border-color**

**Values:** *color name or RGB value* | transparent | inherit

**Default:** *the value of the color property for the element*

**Applies to:** *all elements*

**Inherits:** *no*



```
div#special {
  border-color: maroon aqua;
  border-style: solid;
  border-width: 6px;
  width: 300px;
  height: 100px;
}
```

# Singole dichiarazione border

## border-top, border-right, border-bottom, border-left

**Values:** *border-style border-width border-color | inherit*

**Default:** *defaults for each property*

**Applies to:** *all elements*

**Inherits:** *no*

## border

**Values:** *border-style border-width border-color | inherit*

**Default:** *defaults for each property*

**Applies to:** *all elements*

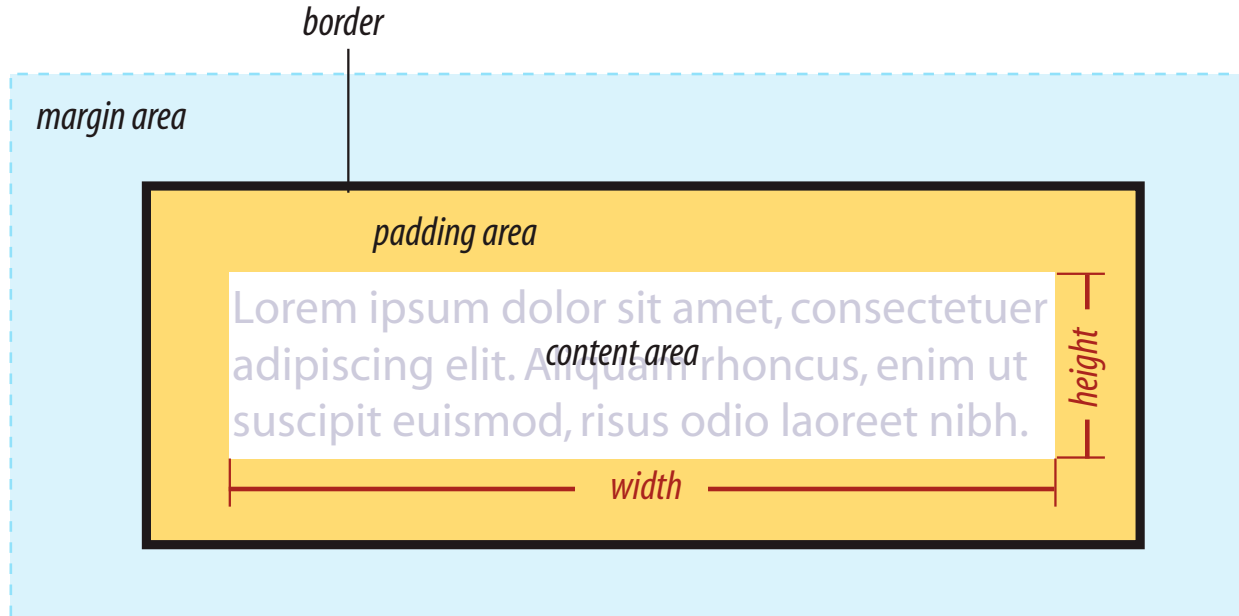
**Inherits:** *no*

```
h1 { border-left: red .5em solid; } /* left border only */
h2 { border-bottom: 1px solid; } /* bottom border only */
p.example { border: 2px dotted #663; } /* all four sides */
```

[https://www.w3schools.com/css/css\\_border\\_shorthand.asp](https://www.w3schools.com/css/css_border_shorthand.asp)



# Esempio di sizing



```
p {
  background: #c2f670;
  width: 500px;
  height: 150px;
  padding: 20px;
  border: 2px solid gray;
  margin: 20px;
}
```

$20\text{px} + 2\text{px} + 20\text{px} + 500\text{px width} + 20\text{px} + 2\text{px} + 20\text{px} = 584 \text{ pixels}$

# Area visibile

*total visible box width = 544 pixels*

width: 500px

Applying masks to the glasses is the most labor-intensive part of the process. Not only do you have to measure, place, and burnish on each mask, but you also need to completely cover the remainder of the glass in heavy paper. Any exposed areas (even inside) will get scratched by flying sand, so it has to be a good seal.

height: 150px

# box-sizing

## box-sizing

NEW IN CSS3

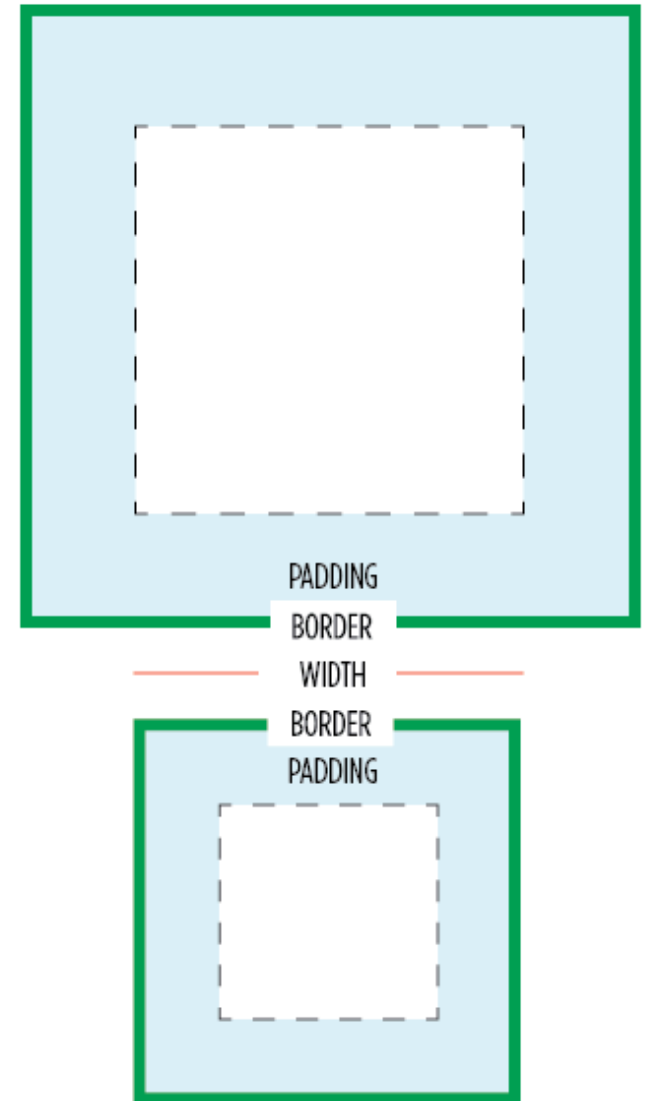
**Values:** content-box | border-box

**Default:** content-box

**Applies to:** all elements

**Inherits:** no

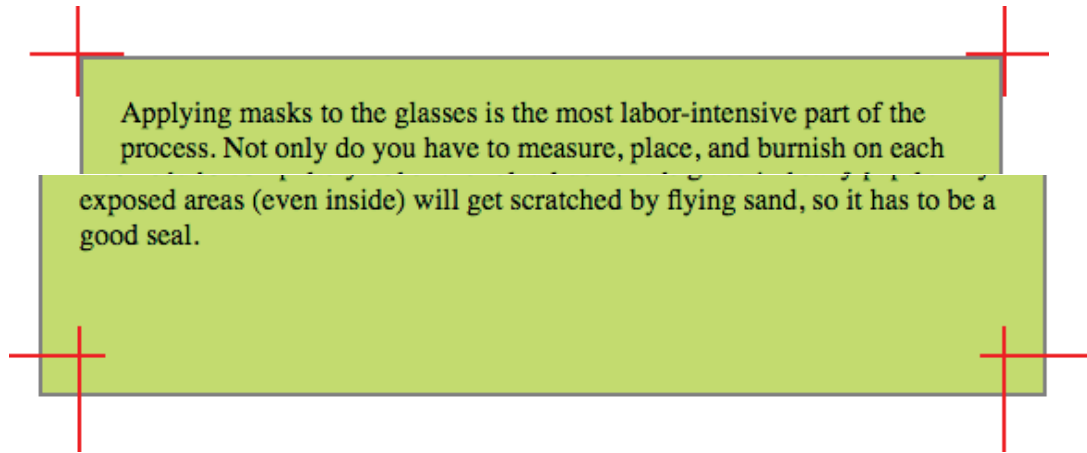
- **border-box**
  - include nel size padding e border
- **content-box**
  - solo contenuto





# Esempio

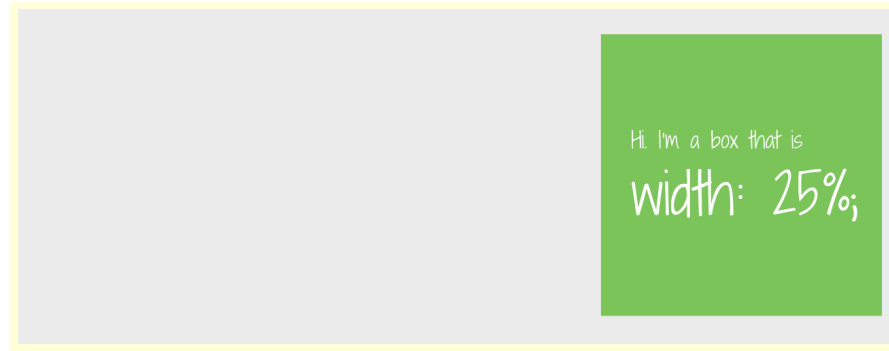
```
p {
  ...
  -webkit-box-sizing: border-box;
  -moz-box-sizing: border-box;
  box-sizing: border-box;
  width: 500px;
  height: 150px;
}
```



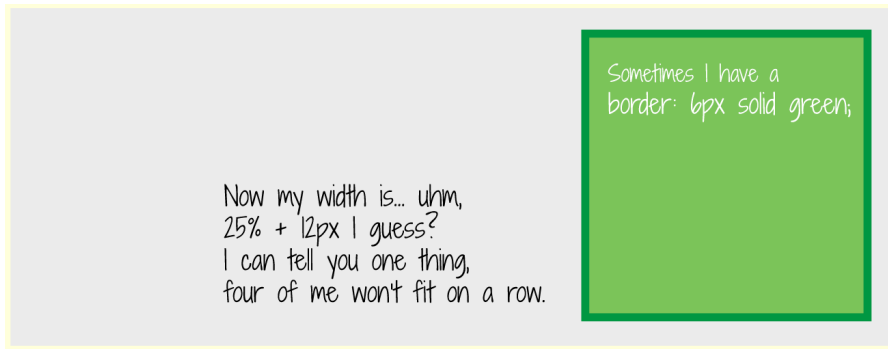
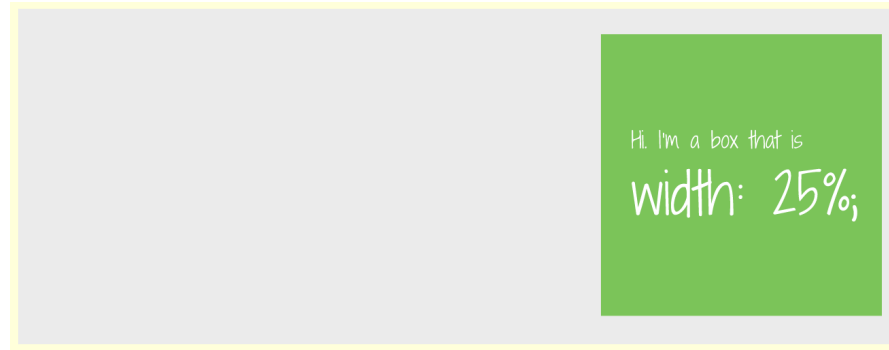
box-sizing: border-box;  
width: 500;

box-sizing: content-box;  
width: 500;

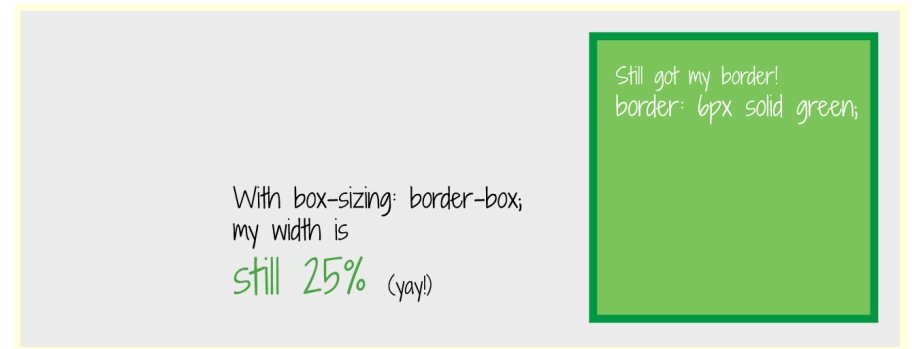
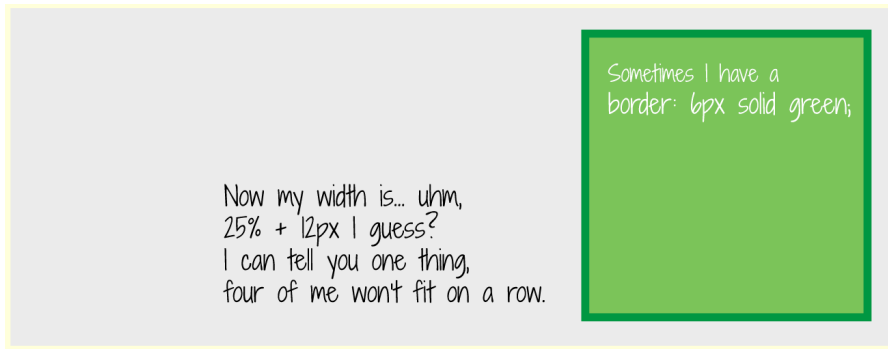
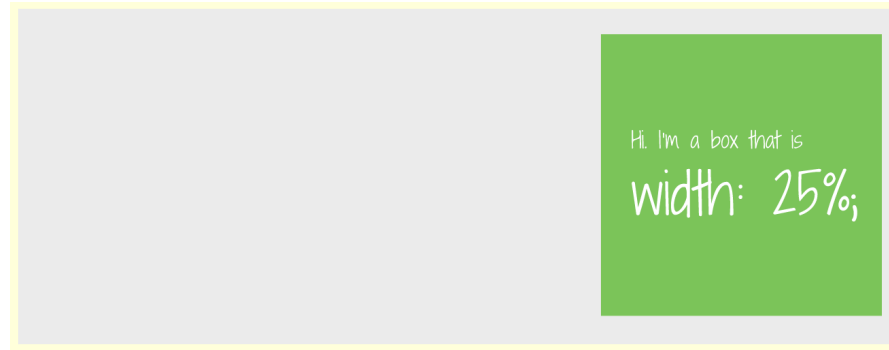
# Perché border-box?



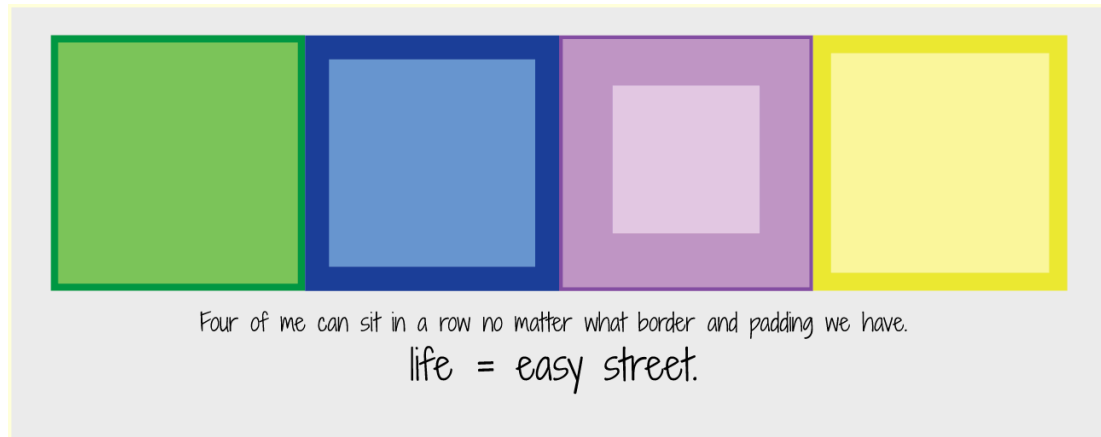
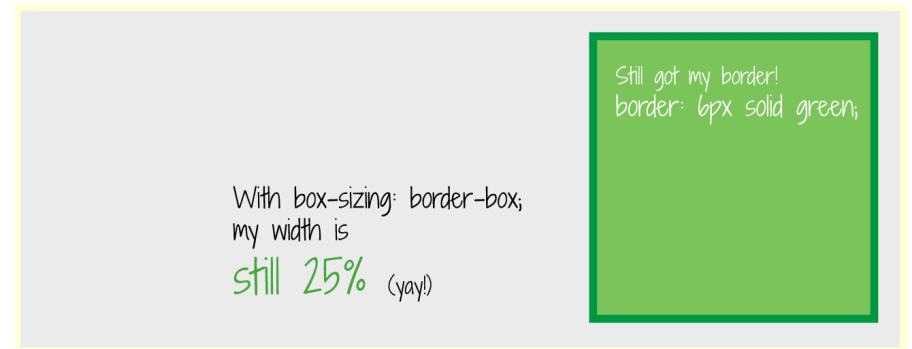
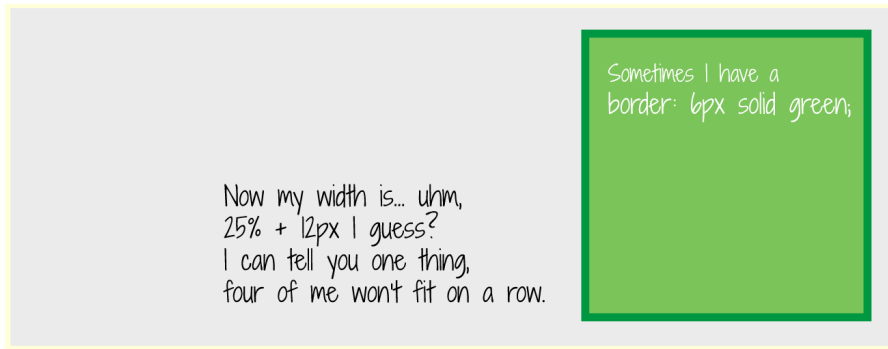
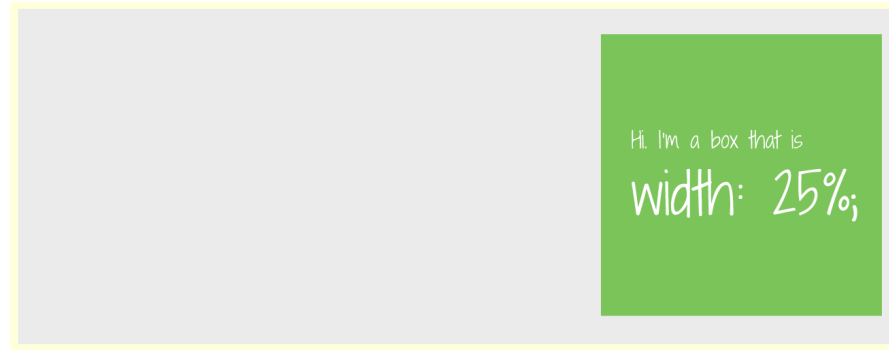
# Perché border-box?



# Perché border-box?



# Perché border-box?



# ANCORA SUL MARGINE

# Margini elementi inline

```
em { margin: 2em;}
```

*Only horizontal margins are rendered on non-replaced (text) elements.*

Applying the masks to the glasses is the most labor-intensive part of the process. Not only do you have to measure, place, and burnish on each mask, but you also need to completely cover the remainder of the glass in heavy paper. Any exposed areas (even inside) will get scratched by the flying sand, so it has to be a good seal.

```
img { margin: 2em;}
```

*Margins are rendered on all sides of replaced elements, such as images.*

Applying the masks to the glasses is the most labor-intensive part of the process. Not only do you have to measure, place, and burnish on each

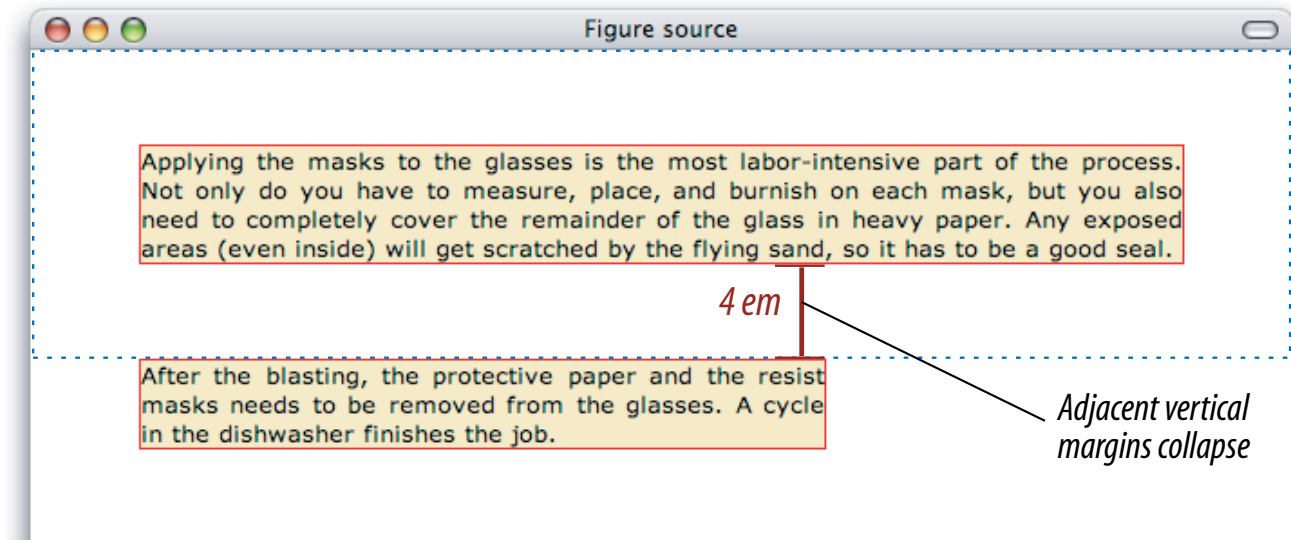


mask, but you also need to completely cover the remainder of the glass in heavy paper. Any exposed areas (even inside) will get scratched by the flying sand, so it has to be a good seal.

- Gli elementi inline ignorano il margine top e bottom

— ad eccezione di quelli replaced (e.g. le immagini)

# Margini che collassano



- Collassano il margine top e quello bottom in uno solo
  - il massimo dei due
- Non collassano se elemento float o absolute



# Margini Negativi

```
p.top { margin-bottom: 4em;}
```

*Pushes the following paragraph element away by 4 ems*

Applying the masks to the glasses is the most labor-intensive part of the process. Not only do you have to measure, place, and burnish on each mask, but you also need to *completely* cover the remainder of the glass in heavy paper. Any exposed areas (even inside) will get scratched by the flying sand, so it has to be a good seal.

Applying the masks to the glasses is the most labor-intensive part of the process. Not only do you have to measure, place, and burnish on each mask, but you also need dot to completely cover the remainder of the glass in heavy paper. Any exposed areas (even inside) will get scratched by the flying sand, so it has to be a good seal.

```
p.top { margin-bottom: -4em;}
```

*The following element moves back by 4 ems*

Applying the masks to the glasses is the most labor-intensive part of the process. Not only do you have to measure, place, and burnish on each mask, but you also need to *completely* cover the remainder of the glass in heavy paper. Any exposed areas (even inside) will get scratched by the flying sand, so it has to be a good seal.

- Si può impostare un valore negativo al margine

# ALTRE PROPRIETÀ DEL BOX

# Overflow

## overflow

**Values:** visible | hidden | scroll | auto | inherit

**Default:** visible

**Applies to:** block-level elements and replaced inline elements (such as images)

**Inherits:** no

### visible

Applying the masks to the glasses is the most labor-intensive part of the process. Not only do you have to measure, place, and burnish on each mask, but you also need to completely cover the remainder of the glass in heavy paper. Any exposed areas (even inside) will get scratched by the flying sand, so it has to be a good seal.

### hidden

Applying the masks to the glasses is the most labor-intensive part of the process. Not only do you have to measure, place, and burnish on each mask, but you also need to completely

### scroll

Applying the masks to the glasses is the most labor-intensive part of the process. Not only do you have to measure, place, and burnish on each mask, but you also

### auto (short text)

Applying the masks to the glasses is the most labor-intensive part of the process.

### auto (long text)

Applying the masks to the glasses is the most labor-intensive part of the process. Not only do you have to measure, place, and burnish on each mask, but you also

# Cambiare il display

## display

**Values:** inline|block|list-item|inline-block|table|inline-table|  
table-row-group|table-header-group|table-footer-group|table-row|  
table-column-group|table-column|table-cell|table-caption|none  
*The following are new in CSS3:* run-in|compact|ruby|ruby-base|ruby-text|  
ruby-base-container|ruby-text-container

**Default:** inline

**Applies to:** all elements

**Inherits:** yes