CSS (and HTML) for Publishers

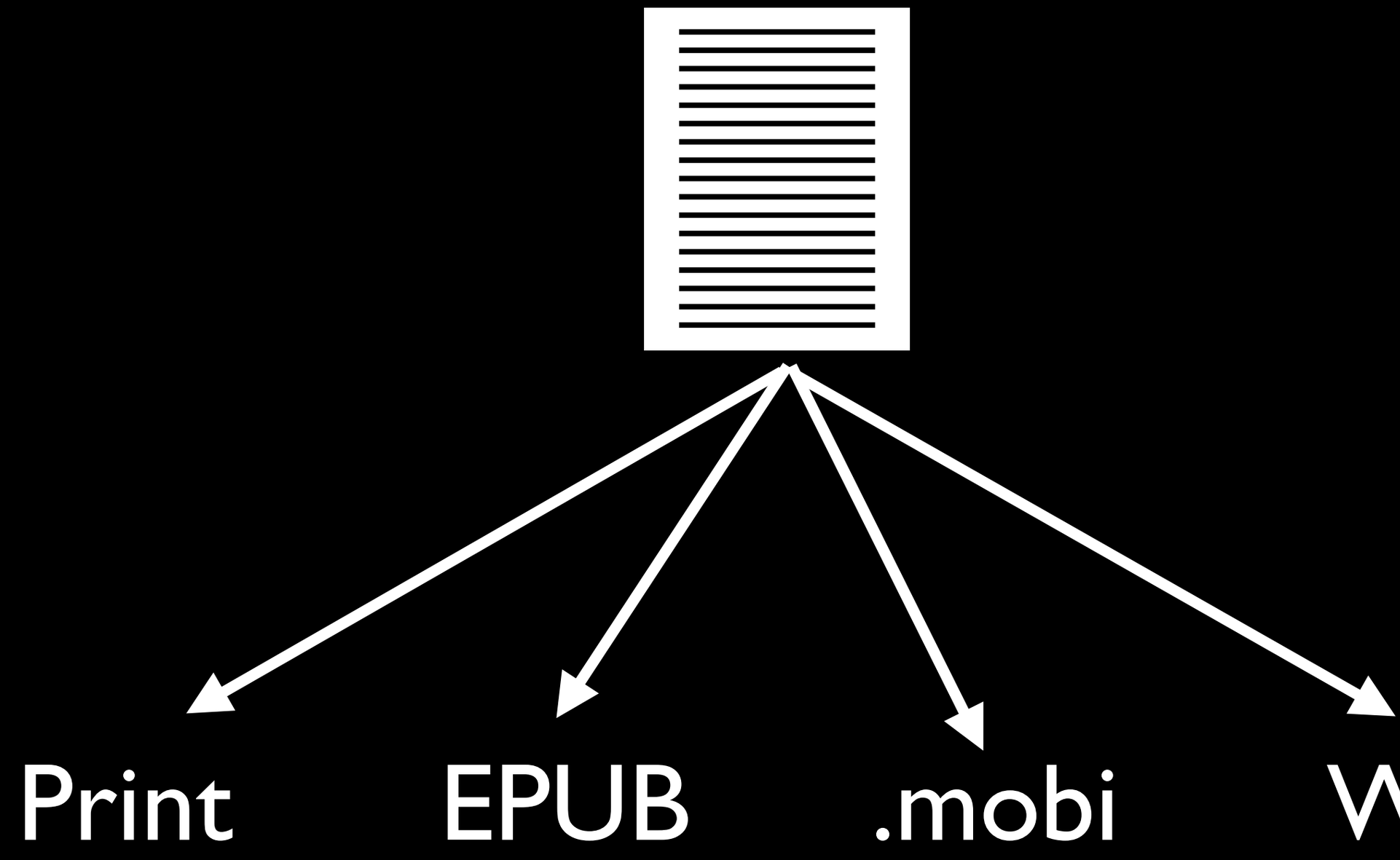
Nellie McKesson
eBook Operations Manager, O'Reilly Media
TOC, Feb 12, 2013

75%

of all O’Reilly titles

Why HTML and CSS?

Single-Source Publishing


Print
EPUB
.mobi
Web

files(4) =/= $(4)

The old O'Reilly way:

XML

XML

EXtensible Markup Language

FurnitureXML

```
<table>Coffee</table>
<chair>Eames</chair>
<desk>Writing</desk>
```

DocBook XML

```
<book>
  <chapter>
  <sidebar>
```

XML

XSL

XSL

Print

EPUB → .mobi

XSL

EXtensible Stylesheet Language

XSLT

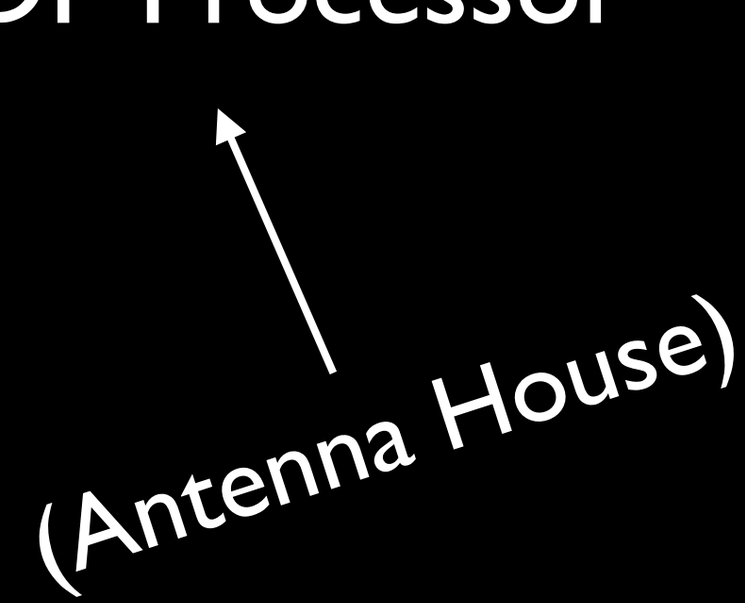
EXtensible Stylesheet Language Transformations

XSL-FO

Formatting Objects

XML + XSLT + XSL-FO + PDF Processor

XML + XSLT + XSL-FO + PDF Processor



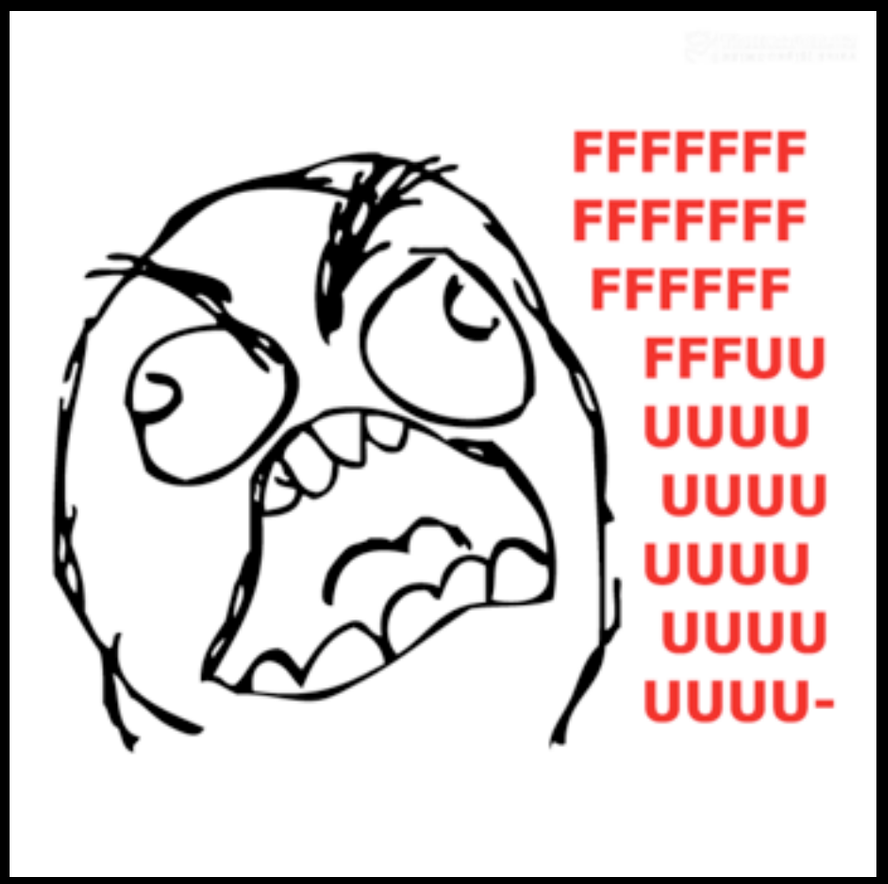
XML

XSL

Magic Box

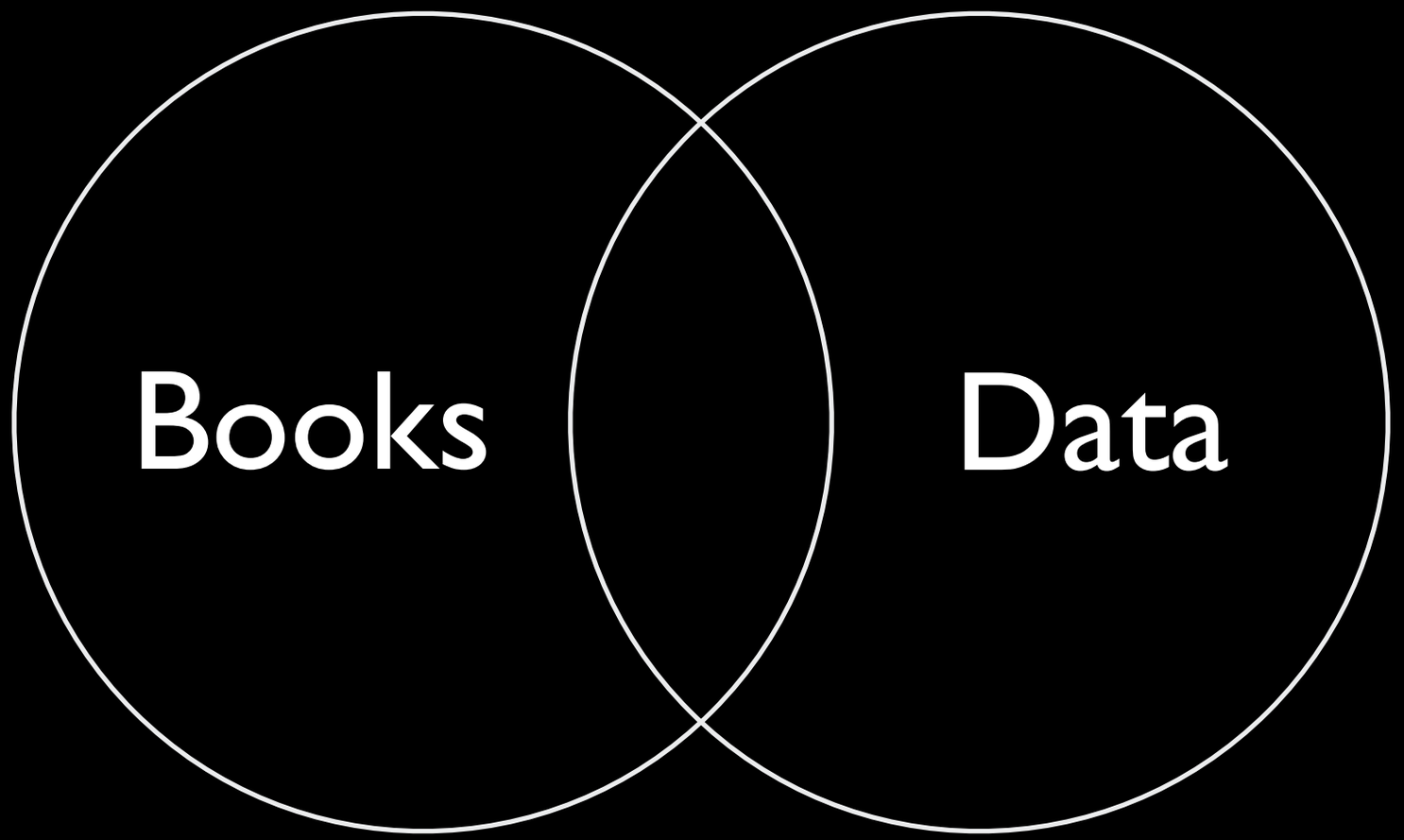
(er, PDF Processor)

PDF!

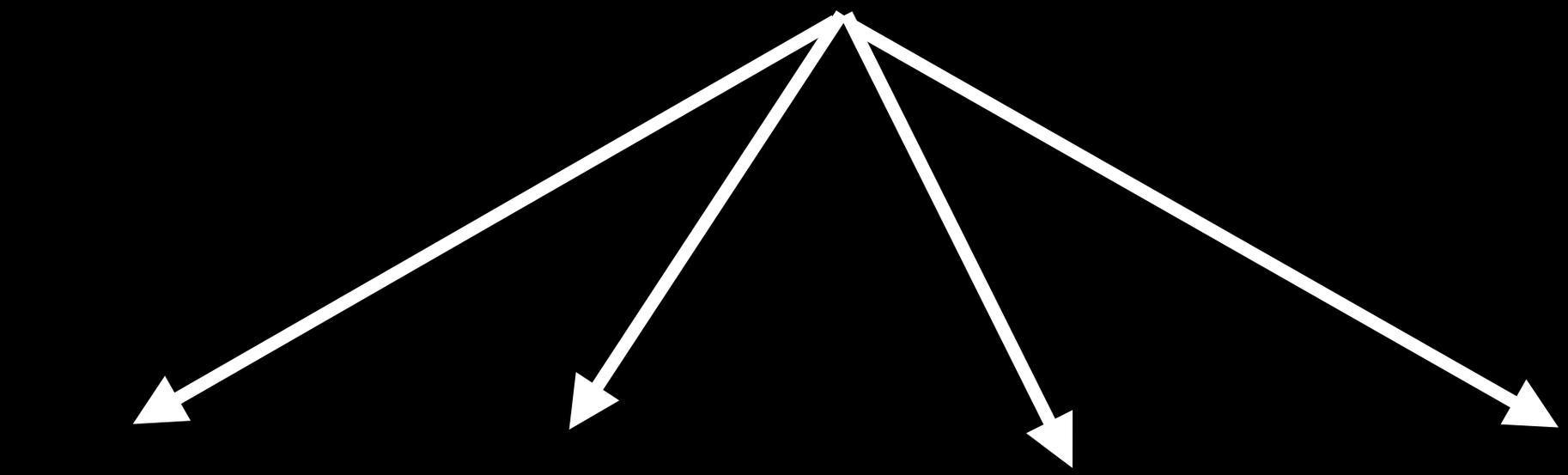

FFFFFFF
FFFFFFF
FFFFFF
FFFUU
UUUU
UUUU
UUUU
UUUU
UUUU-

XHTML

EXtensible HyperText Markup Language


Books
Data

HTML



Web EPUB .mobi Print

Paged Media

Some Basics

HTML and CSS

```
<html>
<body>
<h1>This is the Page Title</h1>
<p>Here is a plain text paragraph</p>
</body>
</html>
```

```
<h1></h1>
```

```
<h1 title="Chapter 1: Hello
World"></h1>
```

kobo

CSS

Cascading Style Sheets

```
<html>

<body>

<h1>This is the Page Title</h1>

<p style="color:blue;margin-left:
20px;">Here is a plain text
paragraph</p>

<p style="color:blue;margin-left:
20px;" >Another paragraph</p>

<p style="color:blue;margin-left:
20px;" >And another paragraph</p>

</body>

</html>
```

```
p {
    color: blue;
    margin-left: 20px;
}
```

Class

```
<p class="blue">
```

```
p.blue {
  color: blue;
}
```

Less Class

The DOM

Document Object Model

body
chapter
heading
paragraph
paragraph
sidebar
paragraph
image
paragraph
chapter
heading
image
p

```
<body>
    <section>
        <h1>
        <p>
        <p>
        <aside>
            <p>
                <img>
        <p>
    <section>
        <h1>
        <img>
        <p>
```

```
aside p {
  font-style: italic;
}
```

```
aside + p {
  font-style: italic;
}
```

```
aside > p {
  font-style: italic;
}
```

Selectors

w3schools.com

Cascades

```
<body>
    <section>
        <h1>
        <p>
        <p>
        <aside>
            <p>
                <img>
        <p>
    <section>
        <h1>
        <img>
        <p>
```

```
aside p {
  font-style: italic;
}
```

```
p {
  font-style: normal;
}
```

```
<body>
    <section>
        <h1>
        <p>
        <p>
        <aside>
            <p>
            <img>
        <p>
<section>
    <h1>
    <img>
    <p>
```

```
<body>
    <div>
        <h2>
        <p>
        <p>
        <div>
            <p>
            <img>
            <p>
<div>
    <h2>
    <img>
    <p>
```

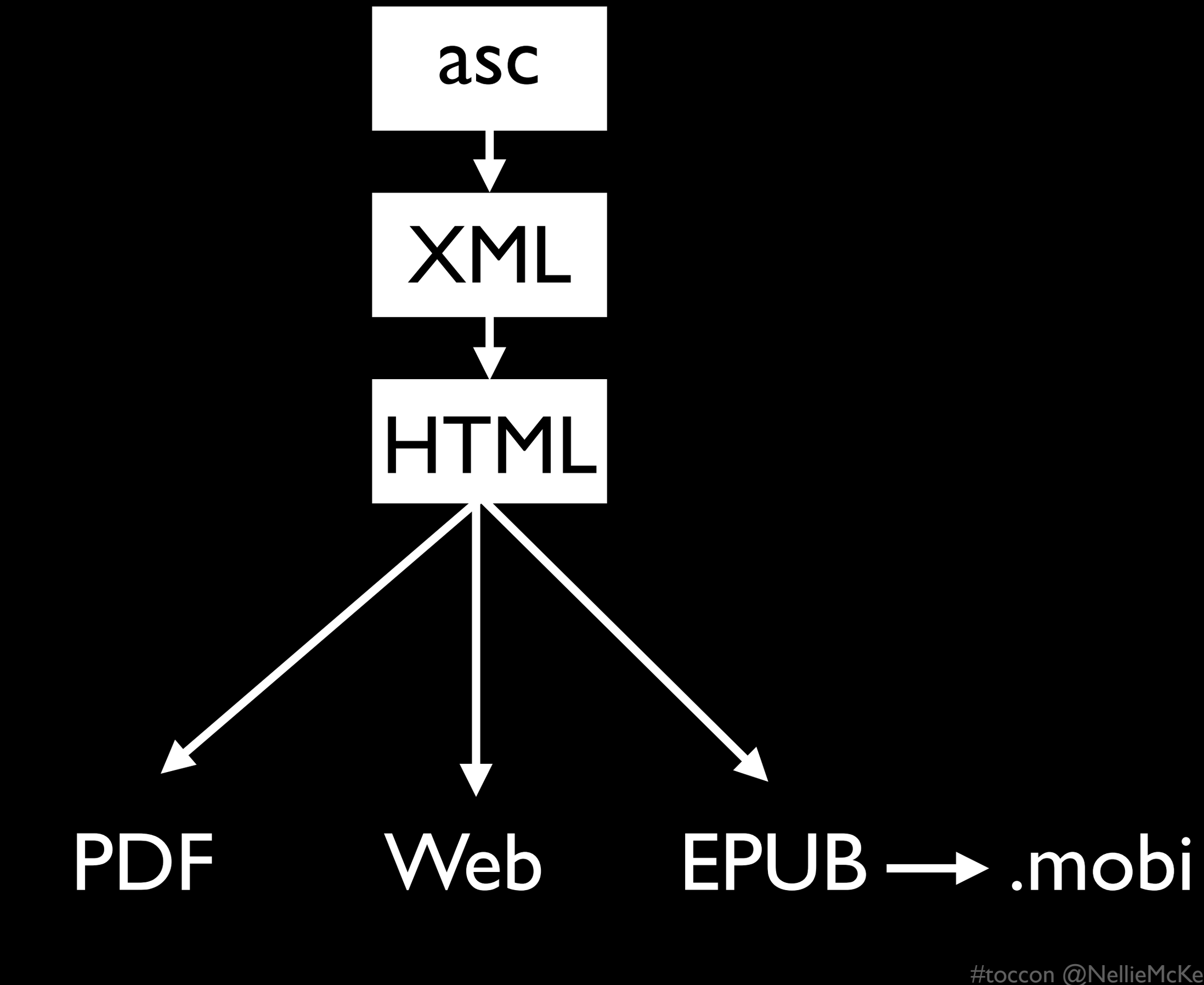
```
<body>
    <div class="chapter">
        <h2>
        <p>
        <p>
        <div>
            <p class="sidebartext">
            <img>
            <p>
<div class="chapter">
    <h2>
    <img>
    <p>
```

Creativity :)

Scalability :(

We Cheated

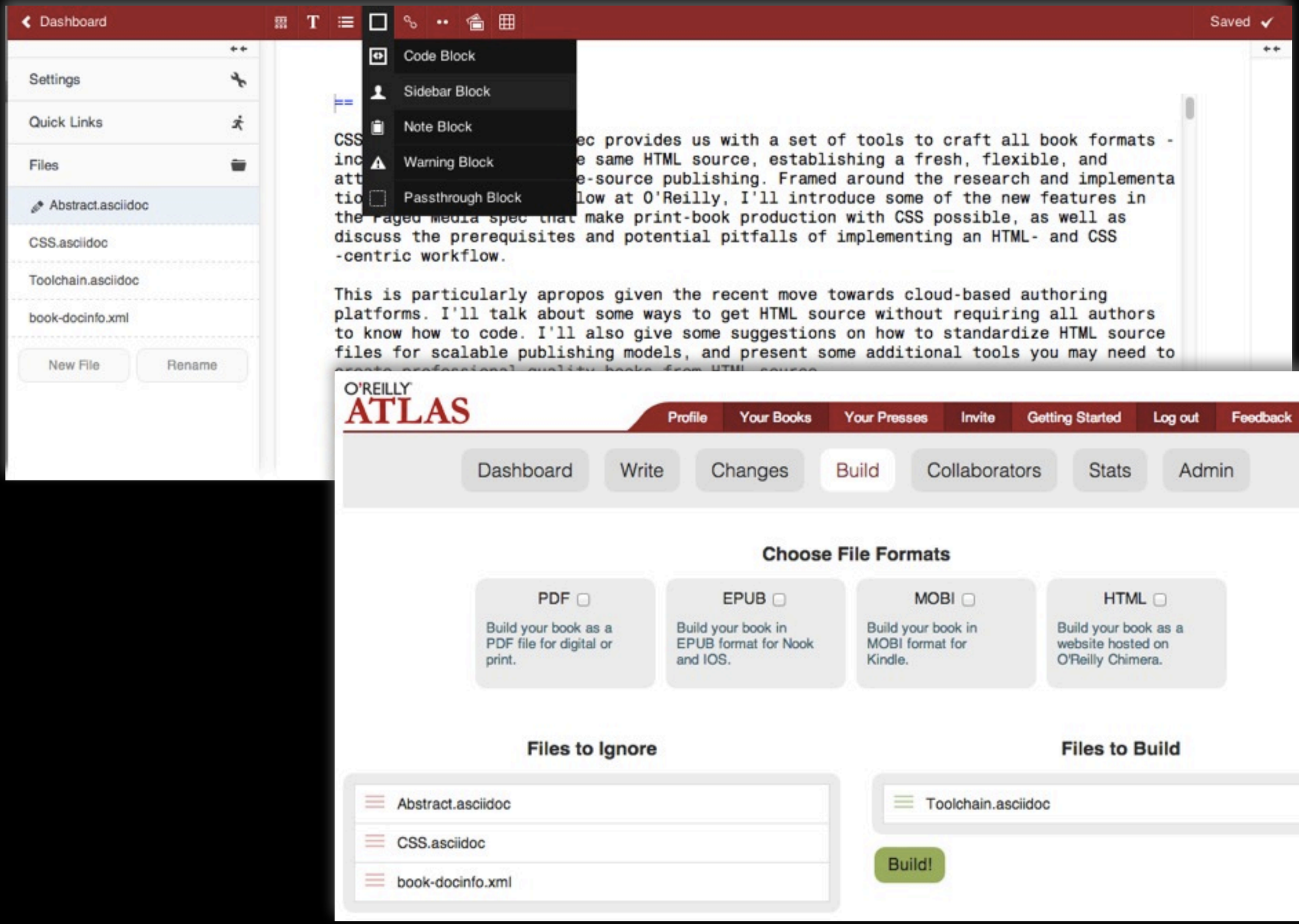
```
== AsciiDoc

This is a text paragraph.

.Here's a bullet list
* Item One
* Item Two
* Item Three

.Here's a sidebar
++++
Sidebar paragraph goes here.
++++
```


asc
XML
HTML
PDF
Web
EPUB → .mobi

Dynamic Elements

Table of Contents, Index, Cross Refs

Why Even Bother?


Dashboard
Saved
Settings
Quick Links
Files
Abstract.asciidoc
CSS.asciidoc
Toolchain.asciidoc
book-docinfo.xml
New File
Rename
Code Block
Sidebar Block
Note Block
Warning Block
Passthrough Block
CSS ec provides us with a set of tools to craft all book formats -
inc e same HTML source, establishing a fresh, flexible, and
att e-source publishing. Framed around the research and implementa
tio low at O'Reilly, I'll introduce some of the new features in
the Paged Media spec that make print-book production with CSS possible, as well as
discuss the prerequisites and potential pitfalls of implementing an HTML- and CSS
-centric workflow.
This is particularly apropos given the recent move towards cloud-based authoring
platforms. I'll talk about some ways to get HTML source without requiring all authors
to know how to code. I'll also give some suggestions on how to standardize HTML source
files for scalable publishing models, and present some additional tools you may need to
O'REILLY
ATLAS
Profile
Your Books
Your Presses
Invite
Getting Started
Log out
Feedback
Blog
Dashboard
Write
Changes
Build
Collaborators
Stats
Admin
Choose File Formats
PDF
Build your book as a PDF file for digital or print.
EPUB
Build your book in EPUB format for Nook and IOS.
MOBI
Build your book in MOBI format for Kindle.
HTML
Build your book as a website hosted on O'Reilly Chimera.
Files to Ignore
Abstract.asciidoc
CSS.asciidoc
book-docinfo.xml
Files to Build
Toolchain.asciidoc
Build!

HTML <3

Well, there's EPUB

HTMLBook

A Spec for HTML-based Books

HTMLBook = HTML + CSS

Not a New Language, No Extra Stuff

```
<section class="chapter">
<h1 class="title">
<ol class="toc">
```

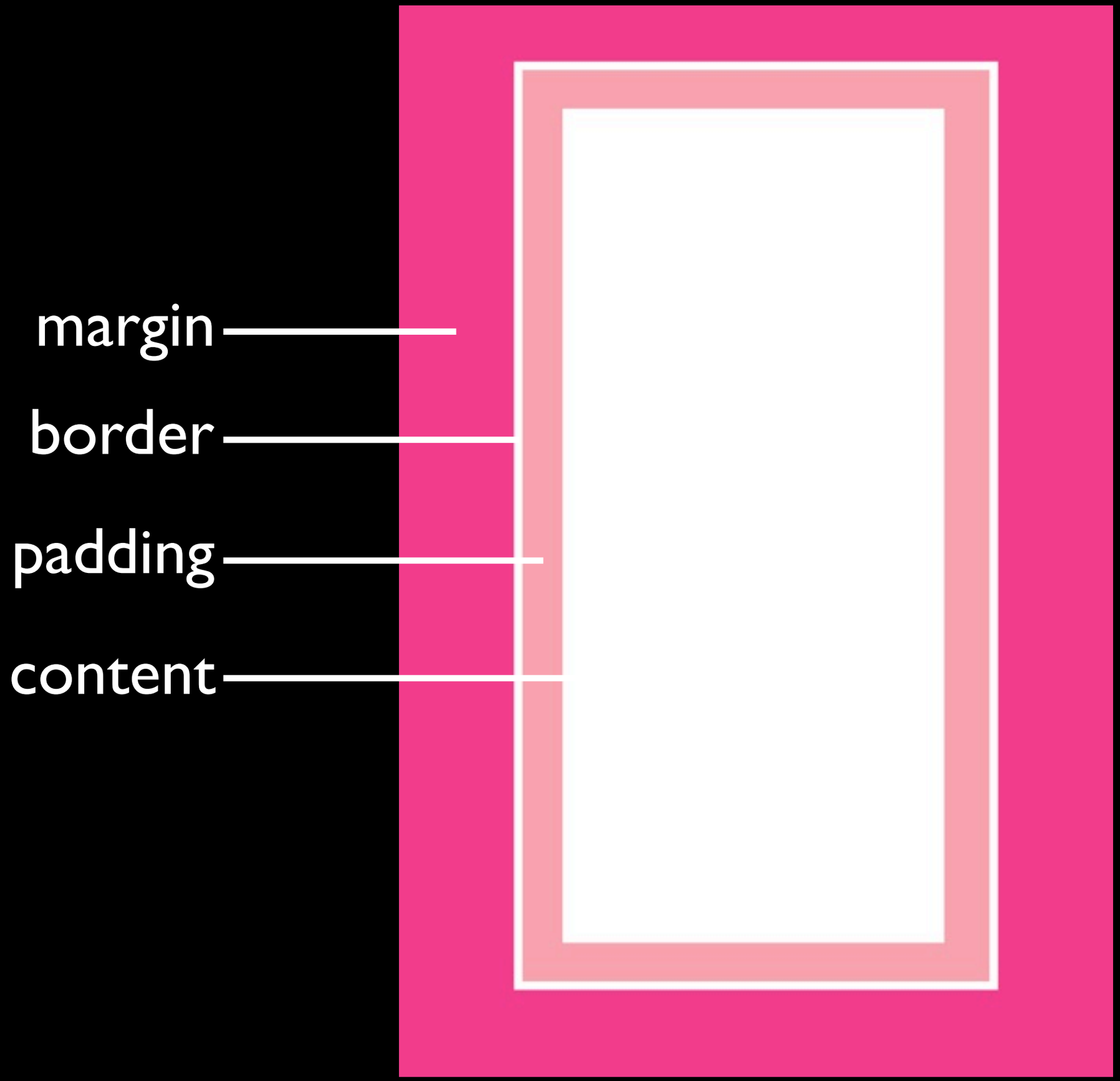
Invisible Markup

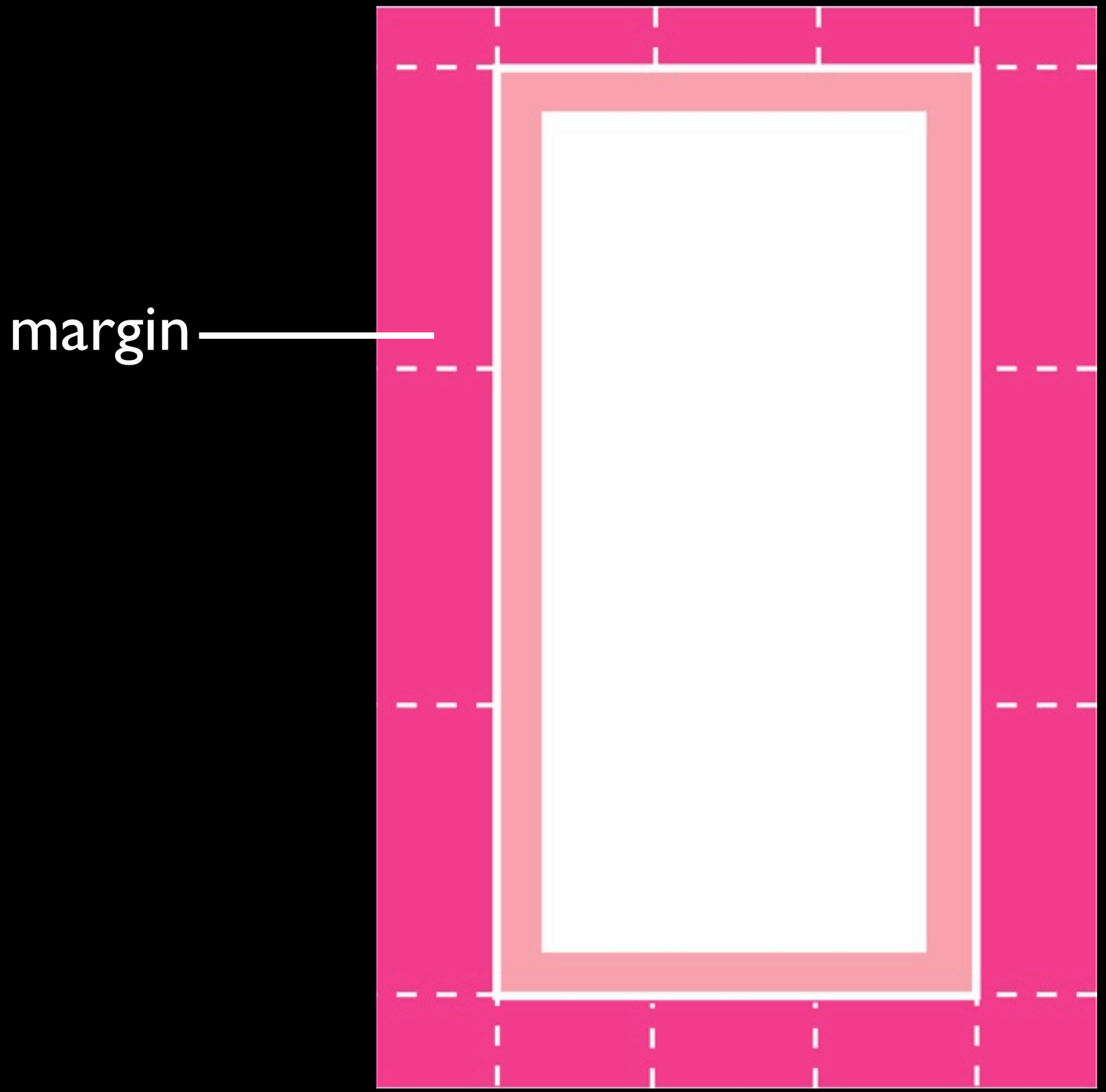
CSS 3 Paged Media

phew!

The Box Model

margin
border
padding
content

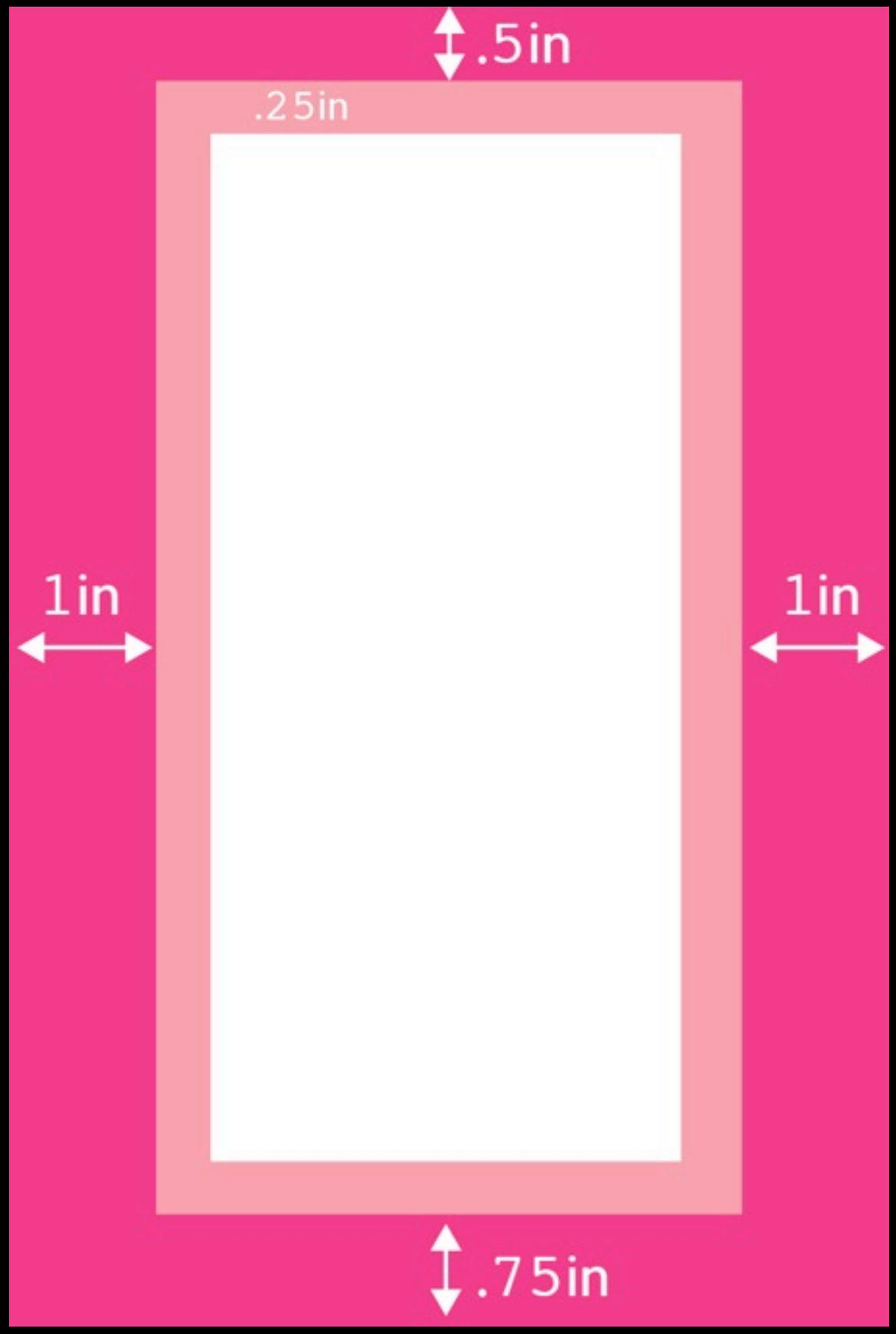

margin
border
padding
content


margin

Master Pages

```
@page {
  size: 6in 9in;
  margin: 0.5in 1in .75in 1in;
  padding: 0.25in;
}
```

```
@page {
  size: 6in 9in;
  margin: 0.5in 1in .75in 1in;
  padding: 0.25in;
}
```



```
:left
:right
:first
```

```
@page {
  size: 6in 9in;
  margin-top: 0.75in;
  margin-bottom: 0.75in;
}
@page:right {
  margin-right: .5in;
  margin-left: 1in;
}
@page:left {
  margin-right: 1in;
  margin-left: .5in;
}
```

```
@page {
  size: 6in 9in;
  margin-top: 0.75in;
  margin-bottom: 0.75in;
}
@page:right {
  margin-right: .5in;
  margin-left: 1in;
}
@page:left {
  margin-right: 1in;
  margin-left: .5in;
}
```

```
@page:right {
  size: 6in 9in;
  margin-top: 0.75in;
  margin-bottom: 0.75in;
  margin-right: .5in;
  margin-left: 1in;
}
@page:left {
  size: 6in 9in;
  margin-top: 0.75in;
  margin-bottom: 0.75in;
  margin-right: 1in;
  margin-left: .5in;
}
```

```
@page {
  size: 6in 9in;
  margin-top: 0.75in;
  margin-bottom: 0.75in;
}
@page:right {
  margin-right: .5in;
  margin-left: 1in;
}
@page:left {
  margin-right: 1in;
  margin-left: .5in;
}
```

Named Pages

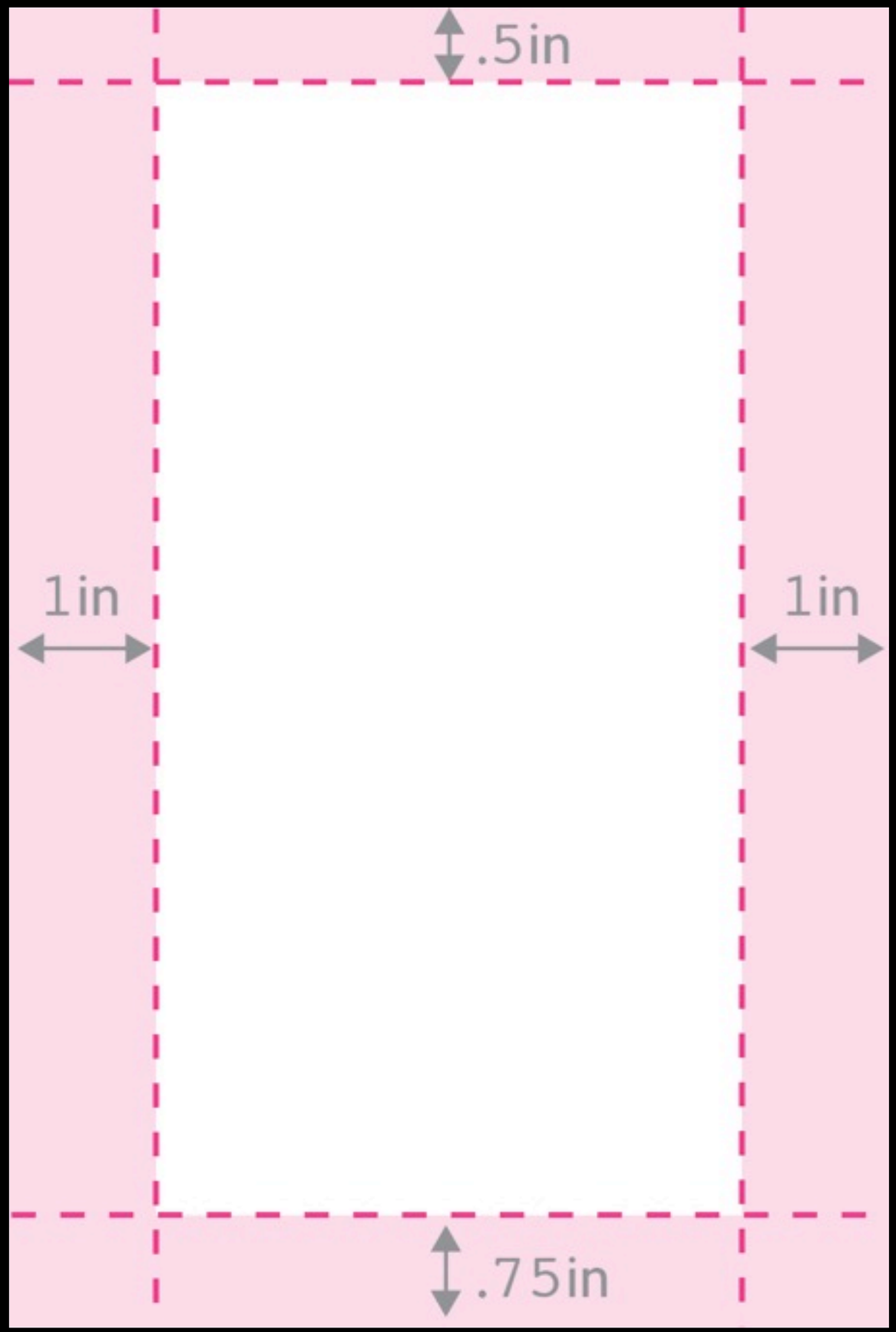
```
@page chaptermaster {
  border-bottom: 1pt solid black;
}

section.chapter {
  page: chaptermaster;
}
```

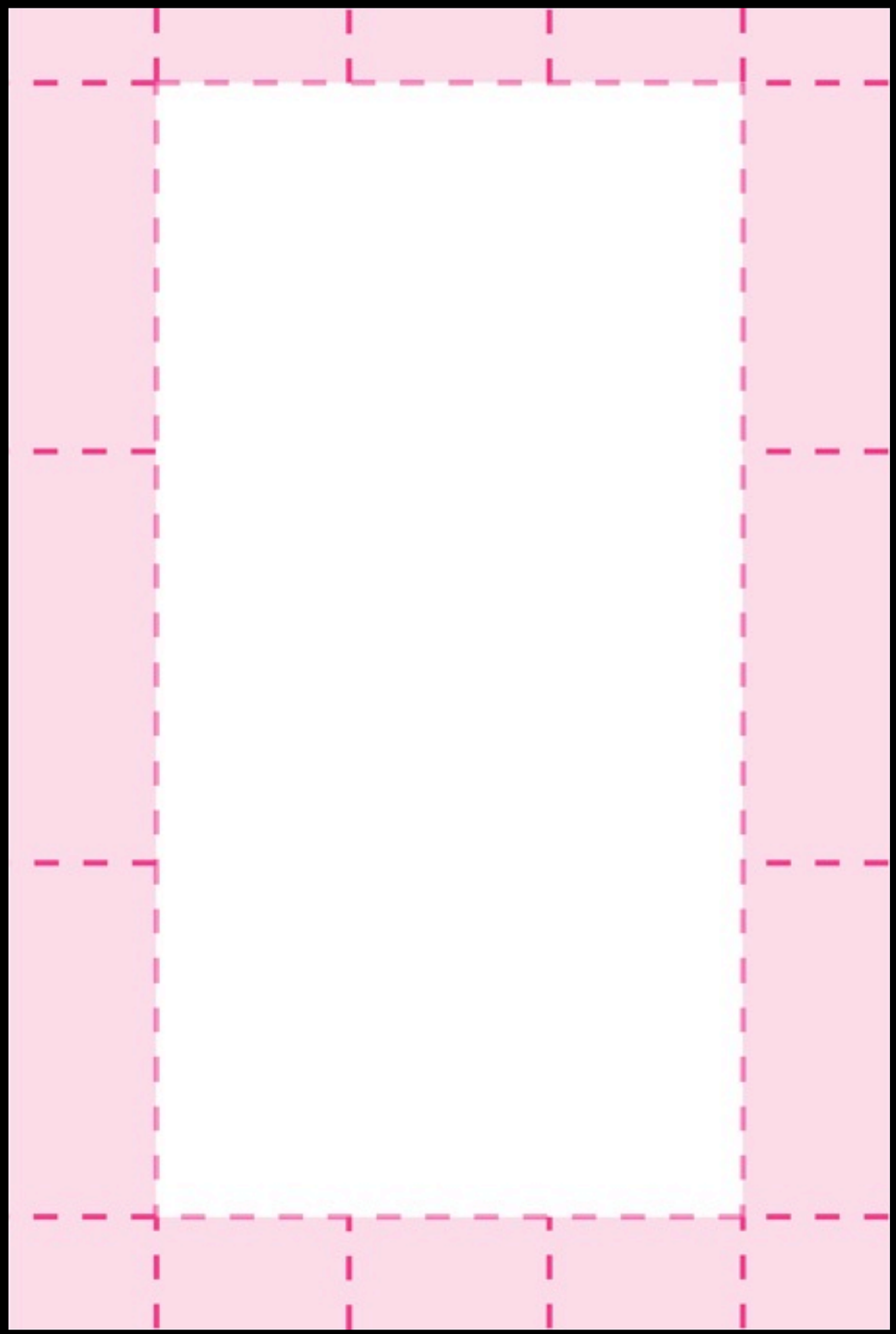
```
@page chaptermaster {
  border-bottom: 1pt solid black;
}
```

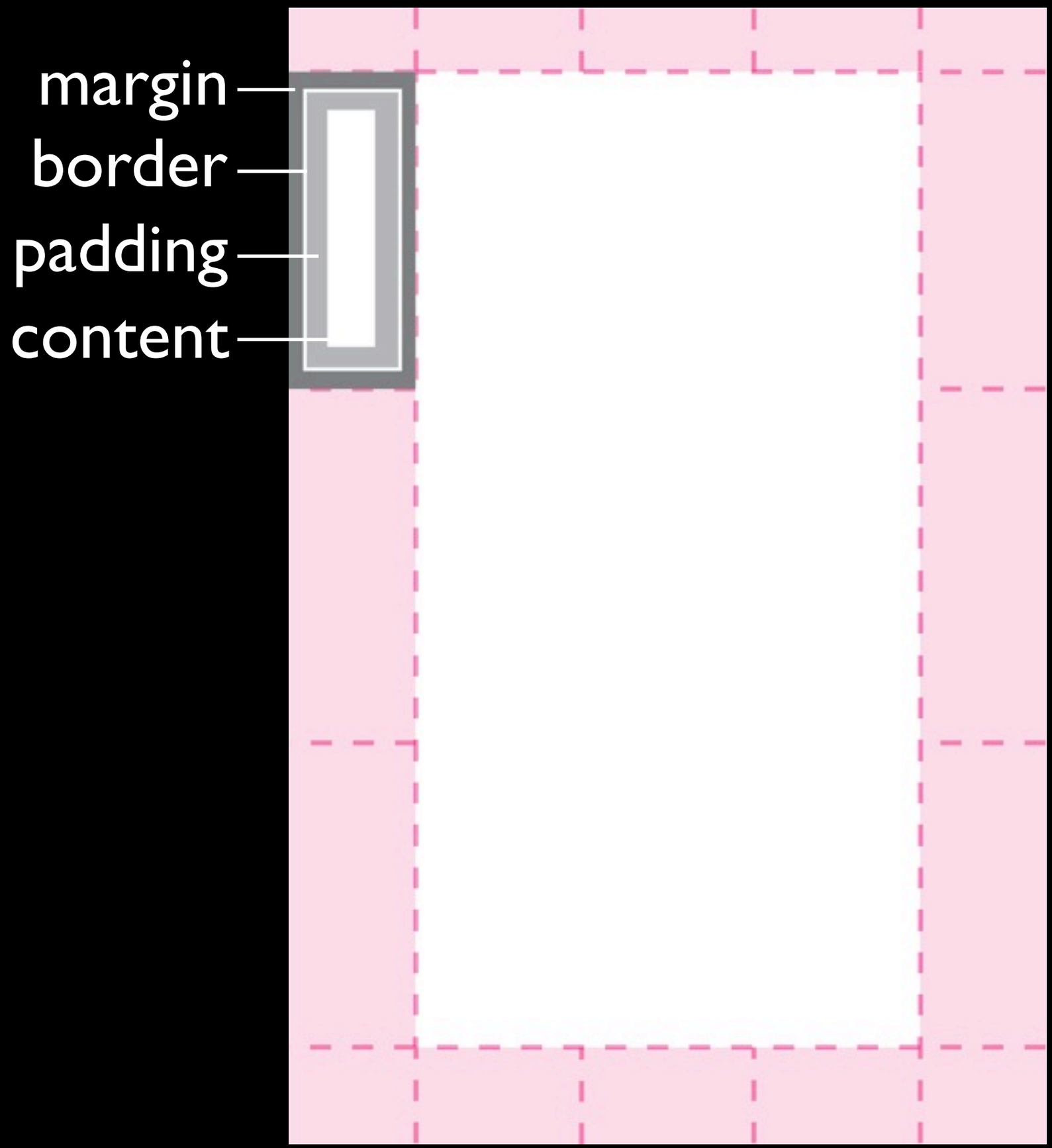
```
@page chaptermaster:first {
  border-bottom-width: 0pt;
}
```

Headers & Footers

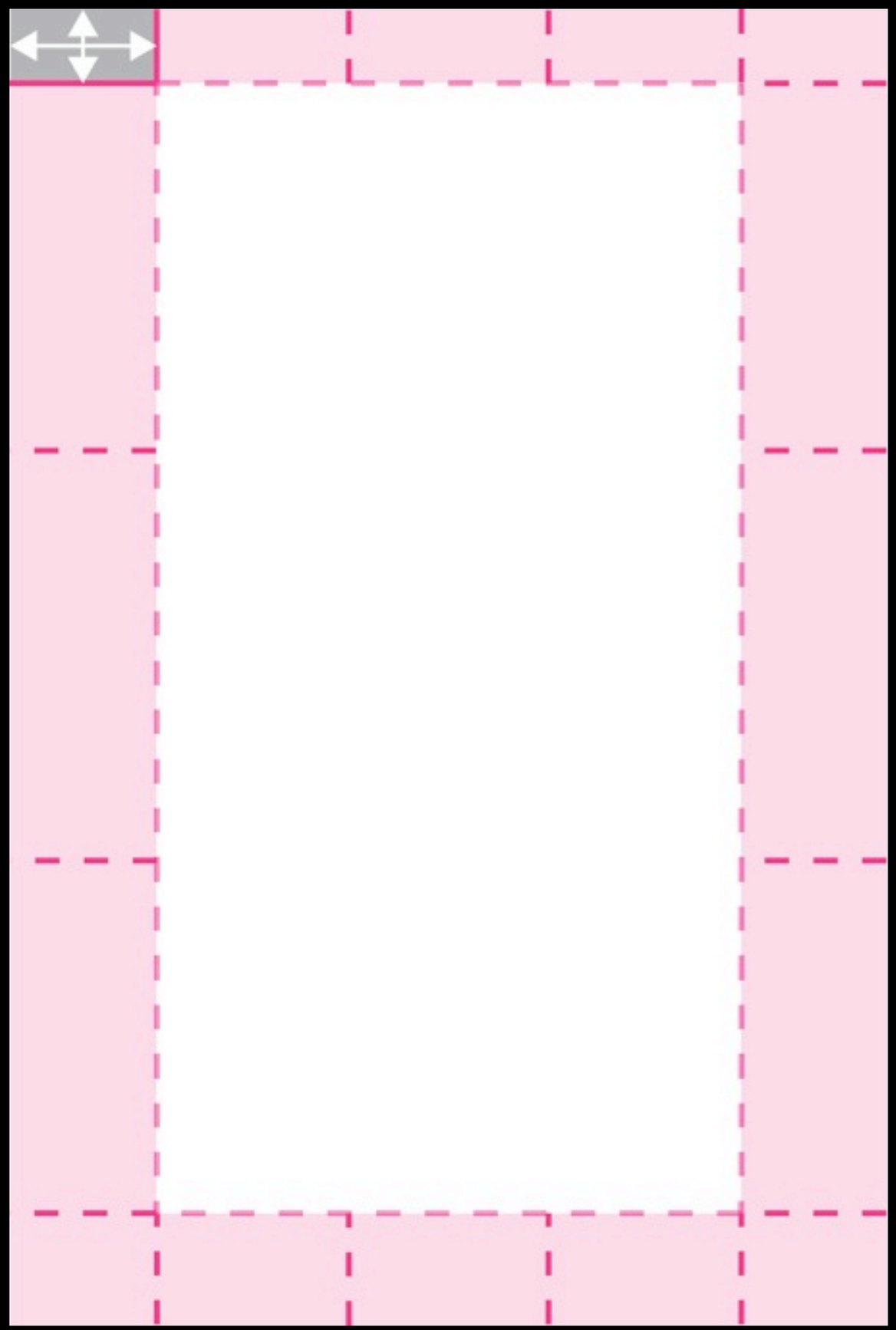
```
@page chaptermaster {
  margin-top: 1in;
  margin-right: .5in;
  margin-bottom: 1.2in;
  margin-left: 1in;
}
```



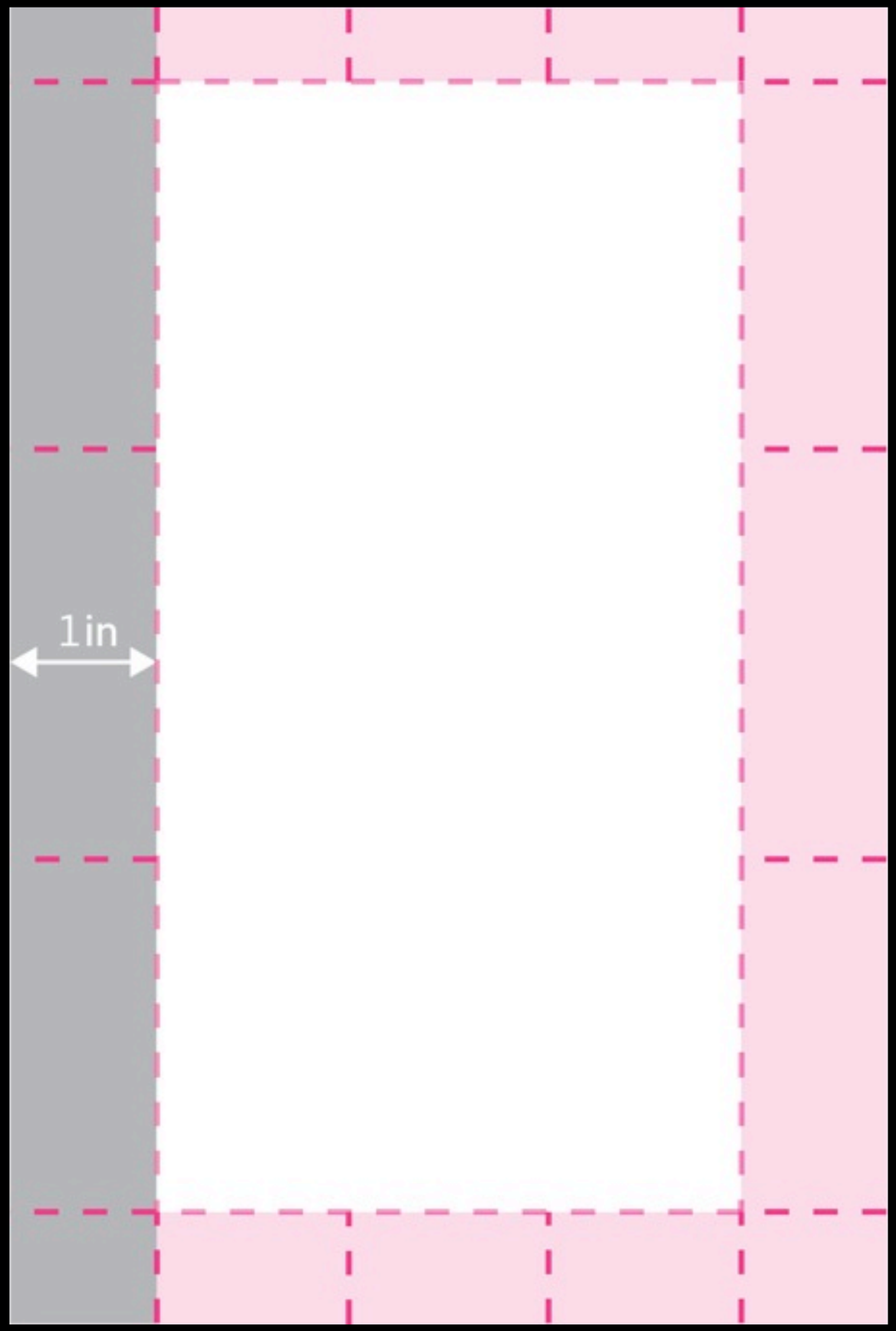



margin
border
padding
content

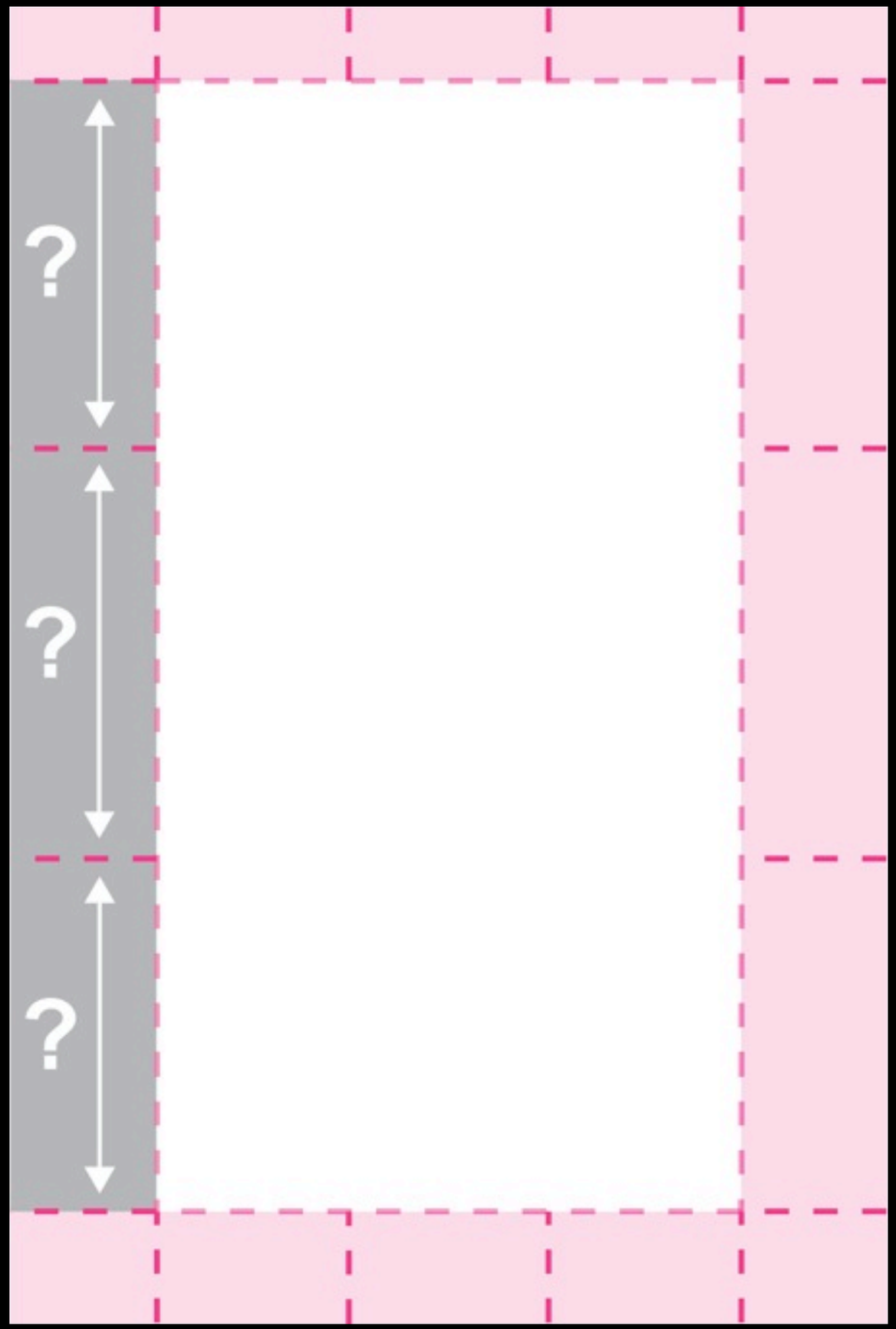
```
margin-top: .5in;

margin-left: 1in;
```

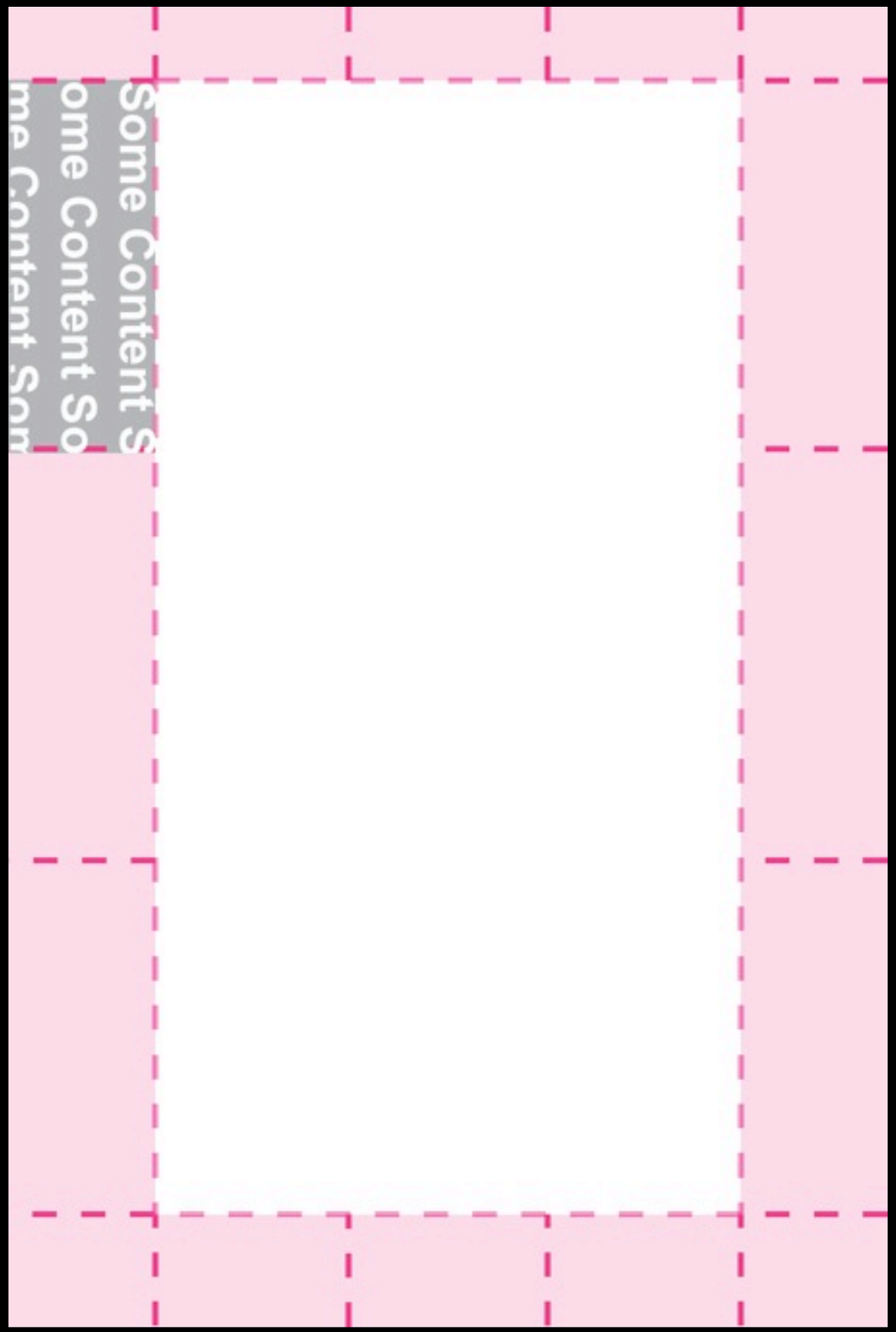


```
margin-left: 1in;
```

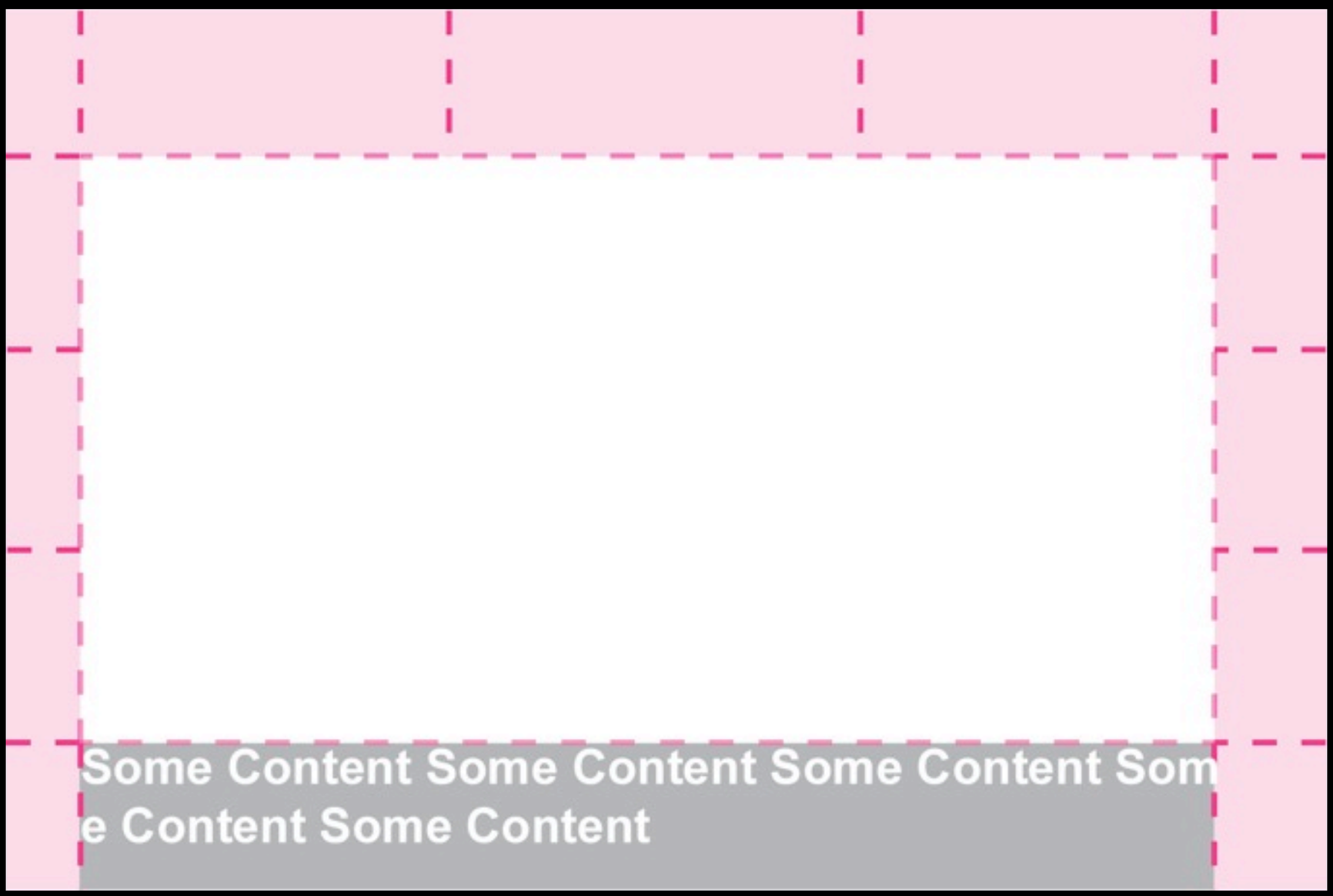


```
width = 1in

height = ????
```




Some Content S
ome Content So
me Content Som

#toccon @NellieMcKesson

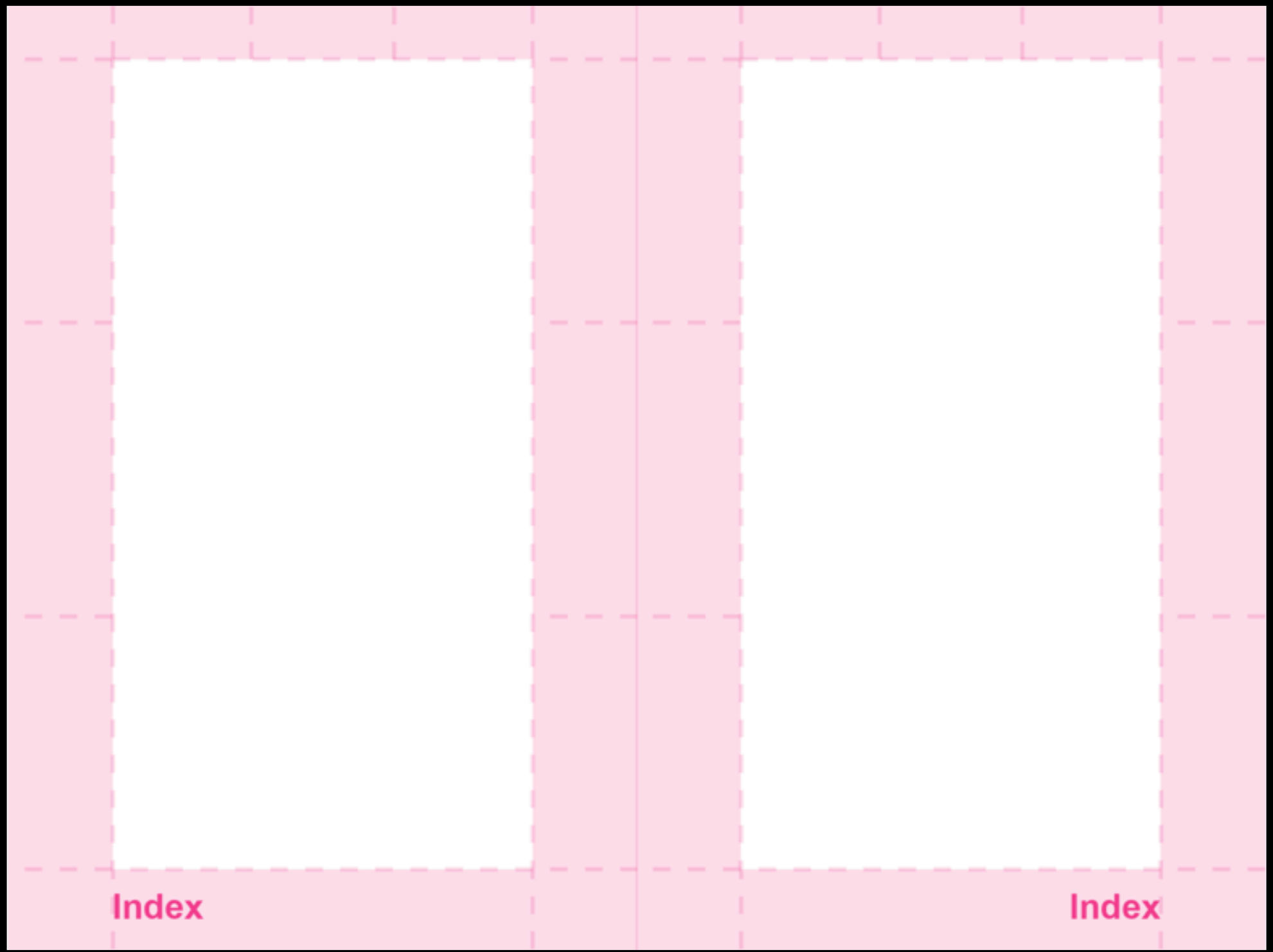


```
content: PUT STUFF HERE;
```

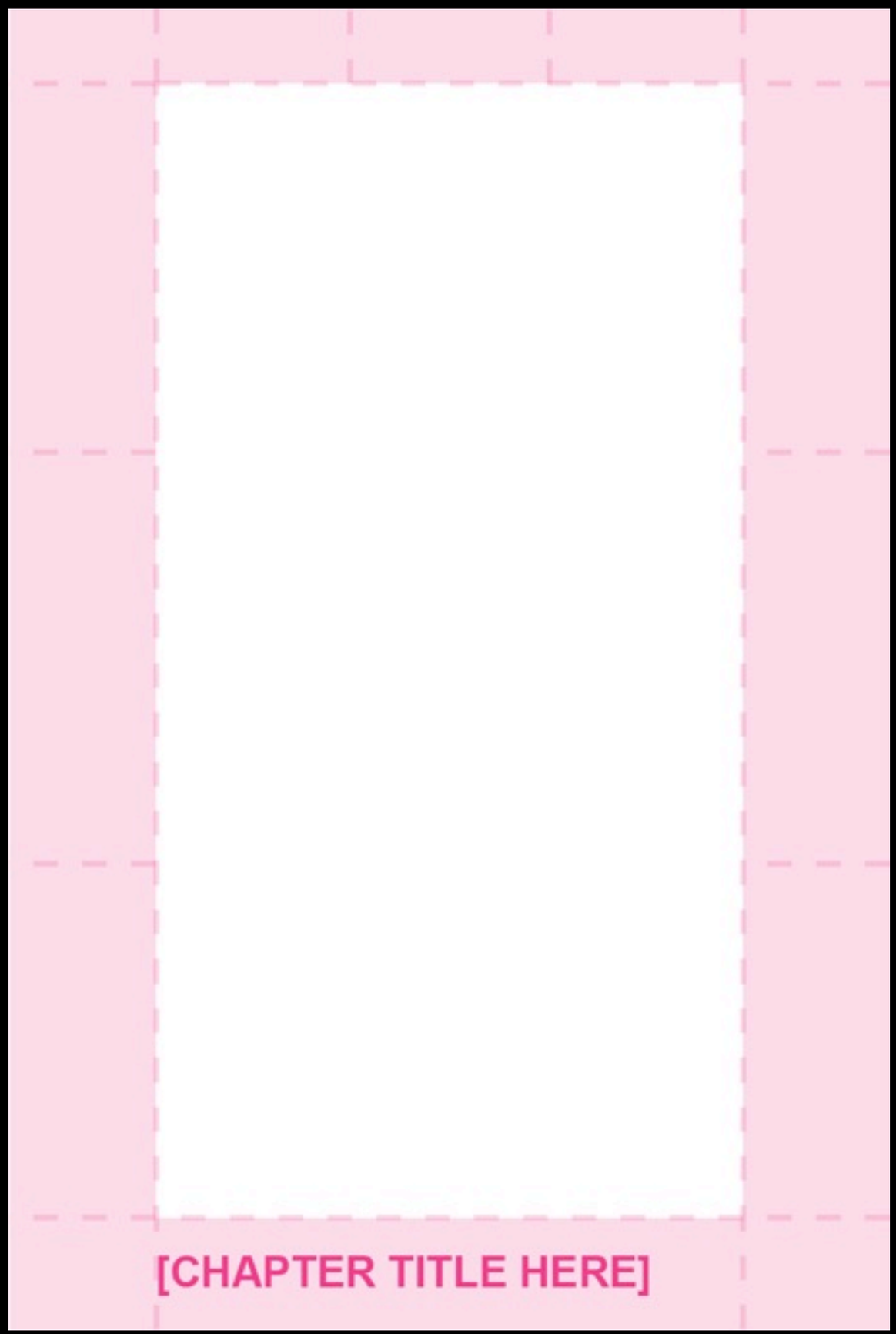
@top-left-corner	@top-left	@top-center	@top-right	@top-right-corner
@left-top				@right-top
@left-middle				@right-middle
@left-bottom				@right-bottom
@bottom-left-corner	@bottom-left	@bottom-center	@bottom-right	@bottom-right-corner

```
@page index:right {
    @bottom-right {
      content: "Index";
      text-align: right;
    }
}
```

```
@page index:left {
    @bottom-left {
      content: "Index";
      text-align: left;
    }
}
```


Index
Index

Strings


[CHAPTER TITLE HERE]

```
h1 {
  string-set: Chaptertitle self;
}
```

```
:before
```

```
:after
```

```
h1:before {
  content: "Hello ";
}

h1:after {
  content: ". Goodbye.";
}
```

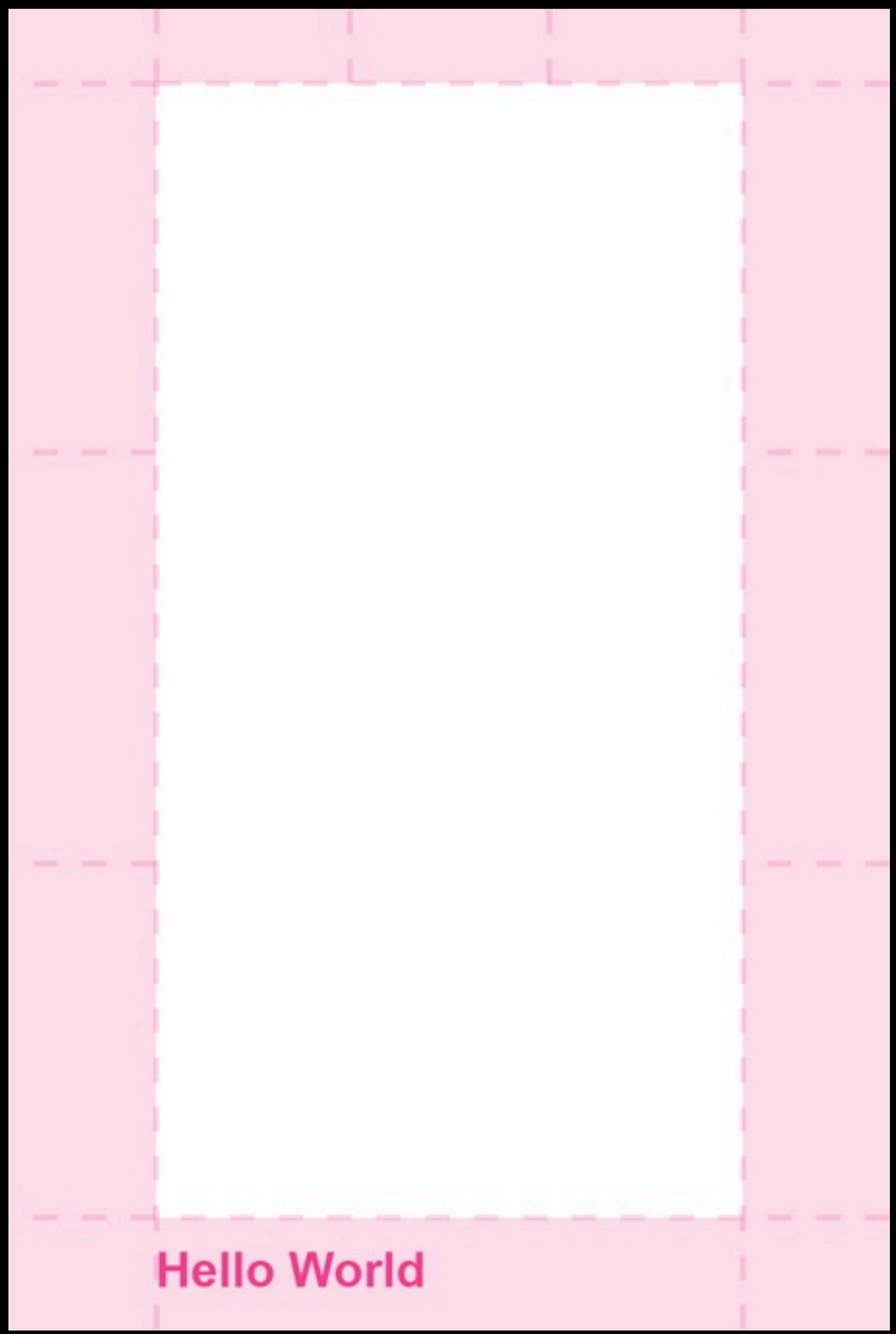
```
<h1>World</h1>
```

“Hello World. Goodbye.”

```
h1 {
  string-set: Chaptertitle self before;
}
```

```
section.chapter h1.title {
  string-set: Chaptertitle self before;
}
```

```
@page chaptermaster:left {
  @bottom-left {
    content: string(Chaptertitle);
  }
}
```


Hello World

Counters!

```
section.chapter {
  counter-increment: chapter;
}
```

```
section.chapter {
  counter-increment: chapter 10;
}
```

```
body {
  counter-reset: chapter;
}
```

```
body {
  counter-reset: chapter;
  counter-reset: appendix;
}
```

```
body {
  counter-reset: chapter appendix;
}
```

```
body {
  counter-reset: chapter 9;
}
```

counters

```
content: PUT STUFF HERE;
```

```
:before
```

```
:after
```

Chapter 1: Hello World

```
section.chapter h1.title:before {
  content: counter(chapter);
}
```

1 Hello World

ugh

```
section.chapter h1.title:before {
  content: "Chapter " counter(chapter) ": ";
}
```

```
section.chapter h1 title:before {
  content: "Chapter " counter(chapter) ": ";
}
```

```
section.chapter h1 title:before {
  content: "Chapter " counter(chapter) ": ";
}
```

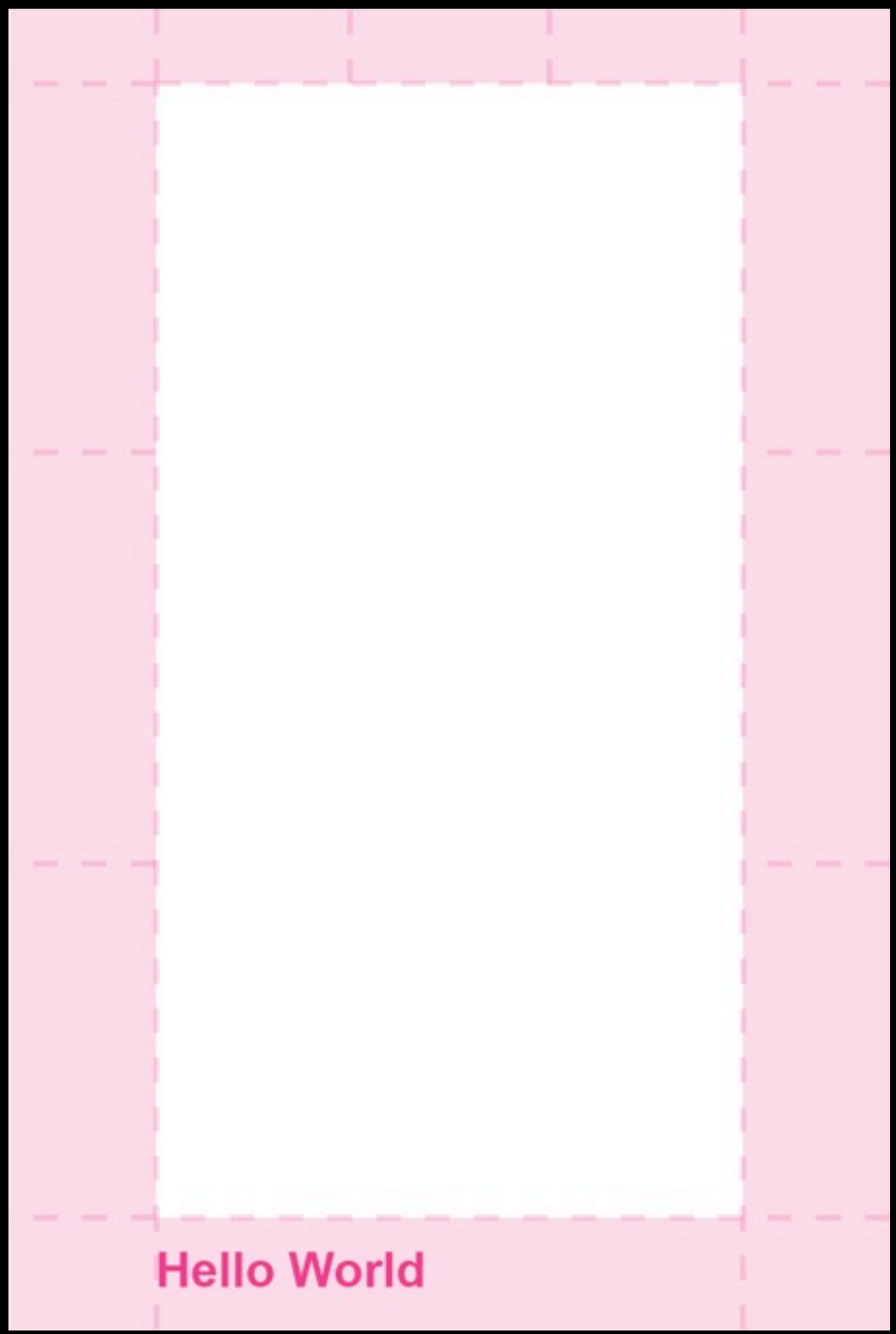
Don’t forget spaces

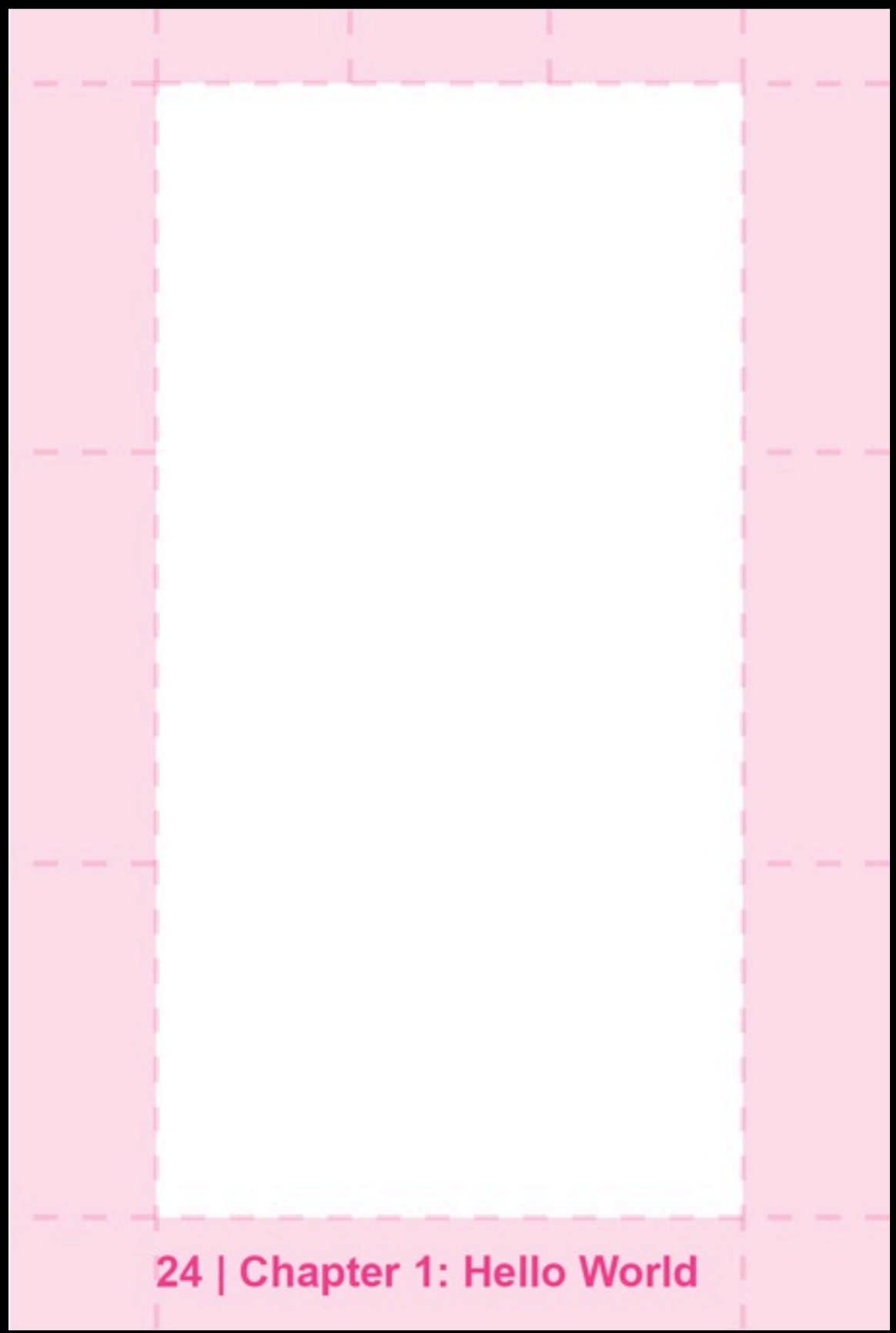
```
section.chapter h1.title:before {
  content: "Chapter " counter(chapter) ": ";
}
```

```
section.chapter h1.title:before {
  content: "Chapter " counter(chapter) ": ";
}
```

Chapter 1: Hello World

yay!

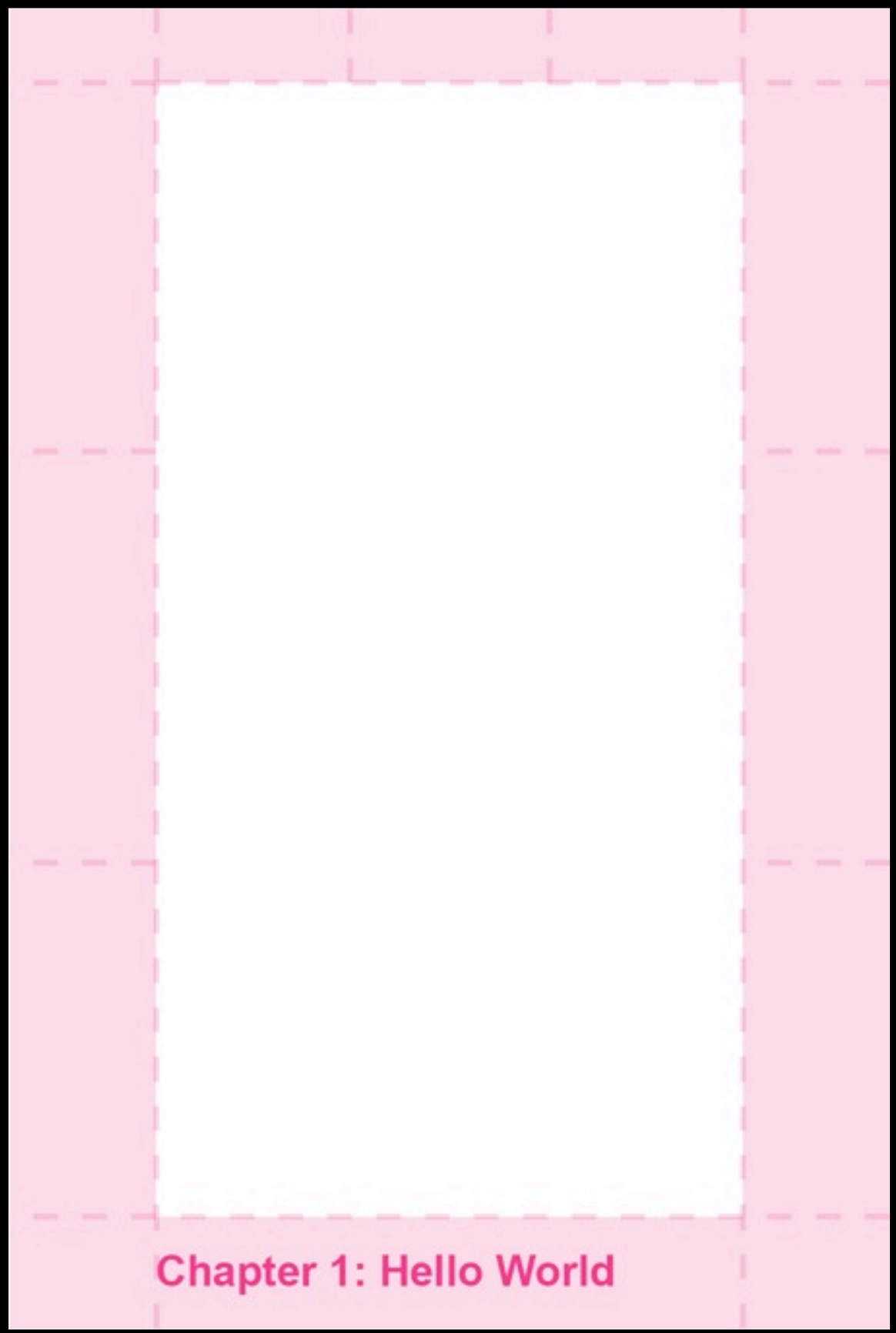

Hello World


24 | Chapter 1: Hello World

```
section.chapter h1.title:before {
  content: "Chapter " counter(chapter) ": ";
}
```

+

```
section.chapter h1.title {
  string-set: Chaptertitle self before;
}
```


Chapter 1: Hello World

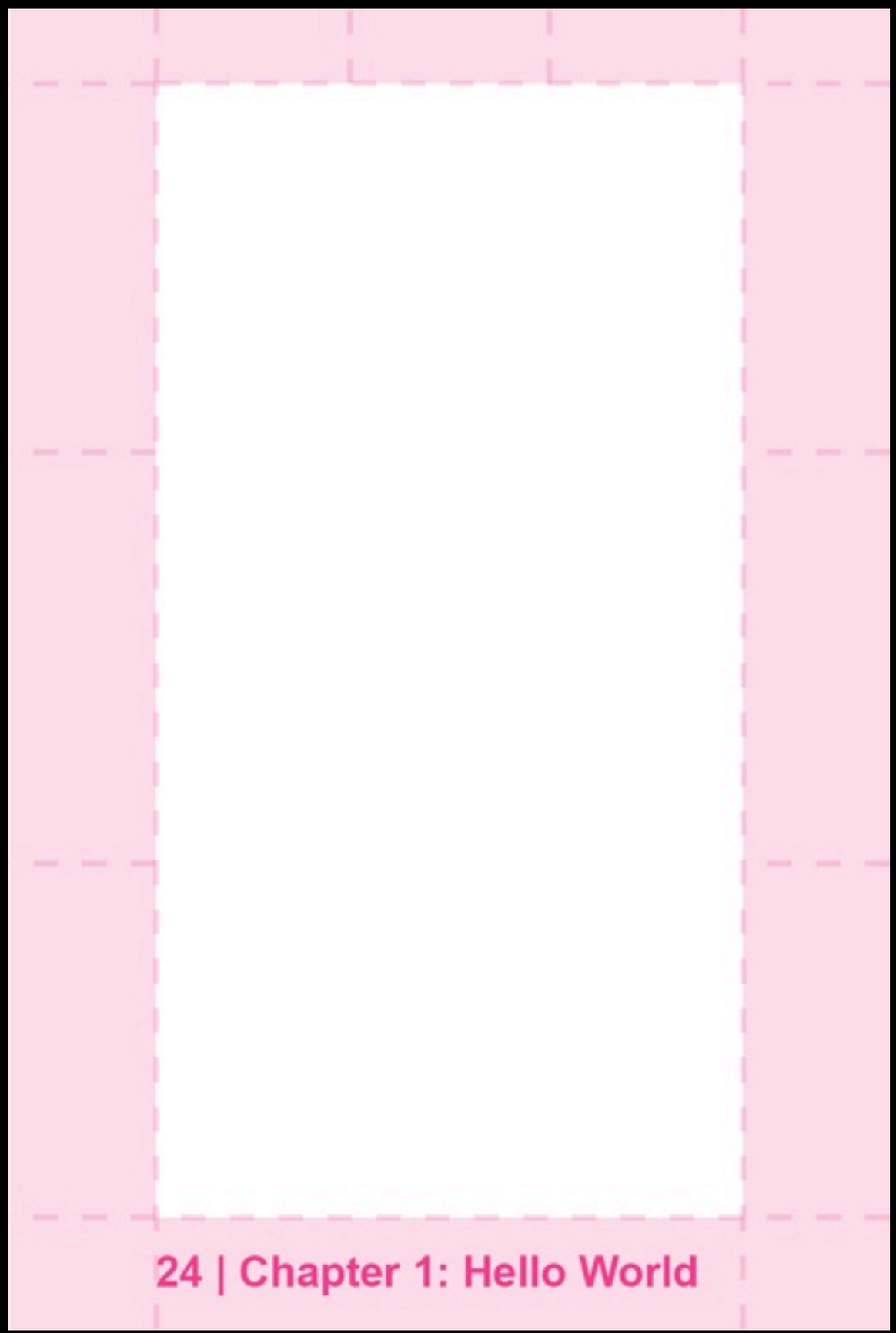
page

pages

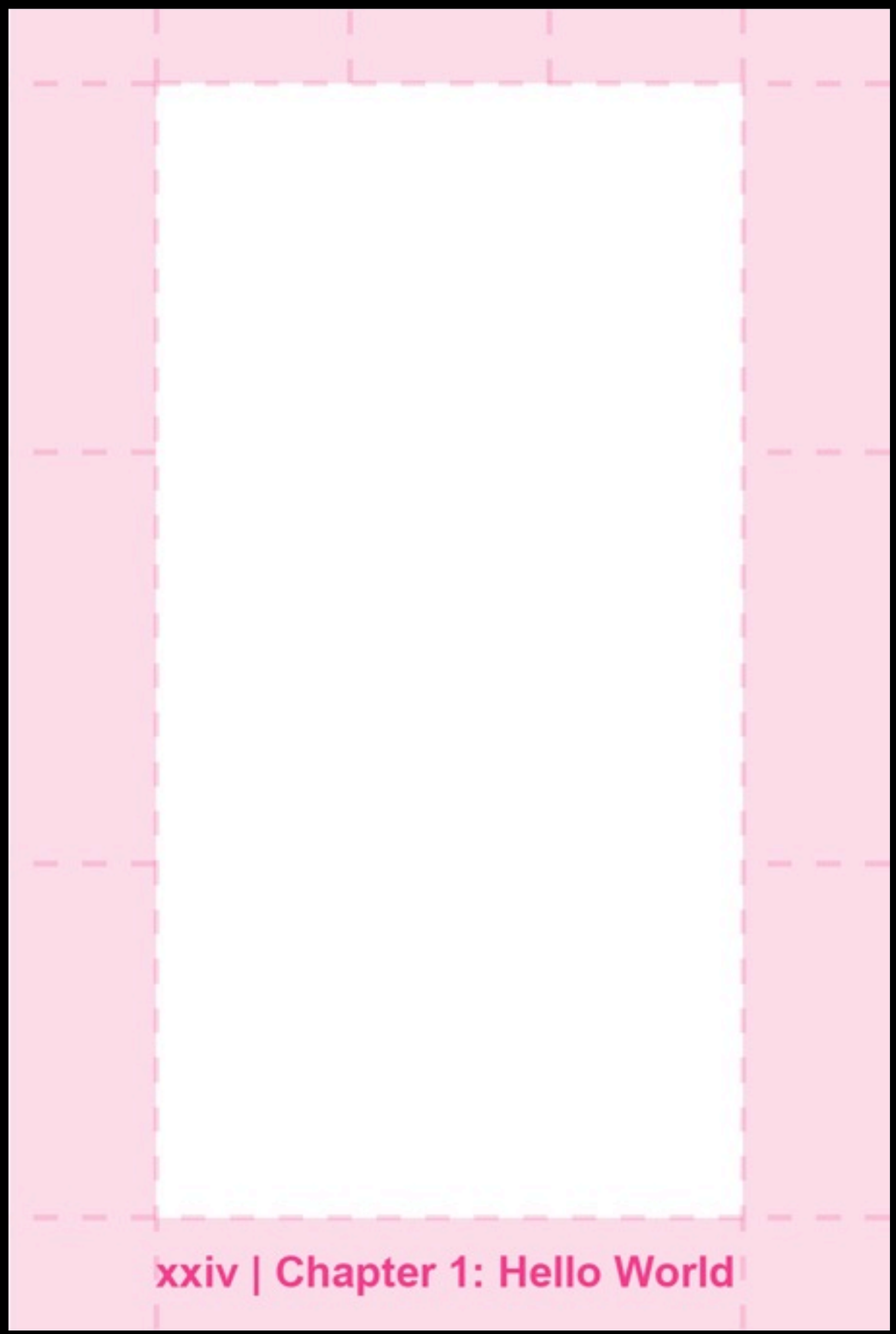
```
section.chapter:first-of-type {
  counter-reset: page 1;
}
```

```
@page chaptermaster:left {
  @bottom-left {
    content: counter(page) string(Chaptertitle);
  }
}
```

```
@page chaptermaster:left {
  @bottom-left {
    content: counter(page)" | "string(Chaptertitle);
  }
}
```


24 | Chapter 1: Hello World

```
content: counter(page, lower-roman);
```

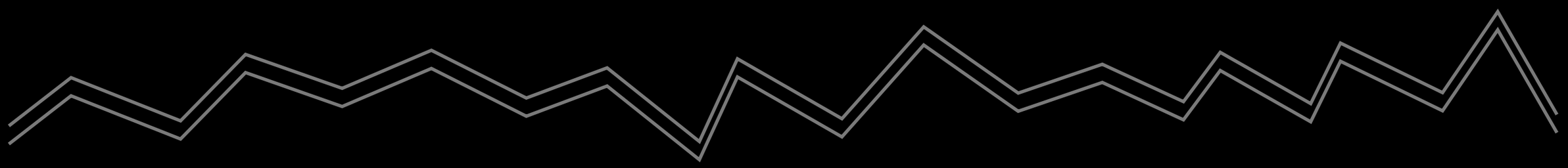


#toccon @NellieMcKesson

Cascades <3

PDF x 2

```
@charset "UTF-8";
@import "core.css";
/* Special stuff for Print PDFs goes here */
```



```
@charset "UTF-8";
@import "core.css";
/* Special stuff for Web PDFs goes here */
```

Print

Resolution

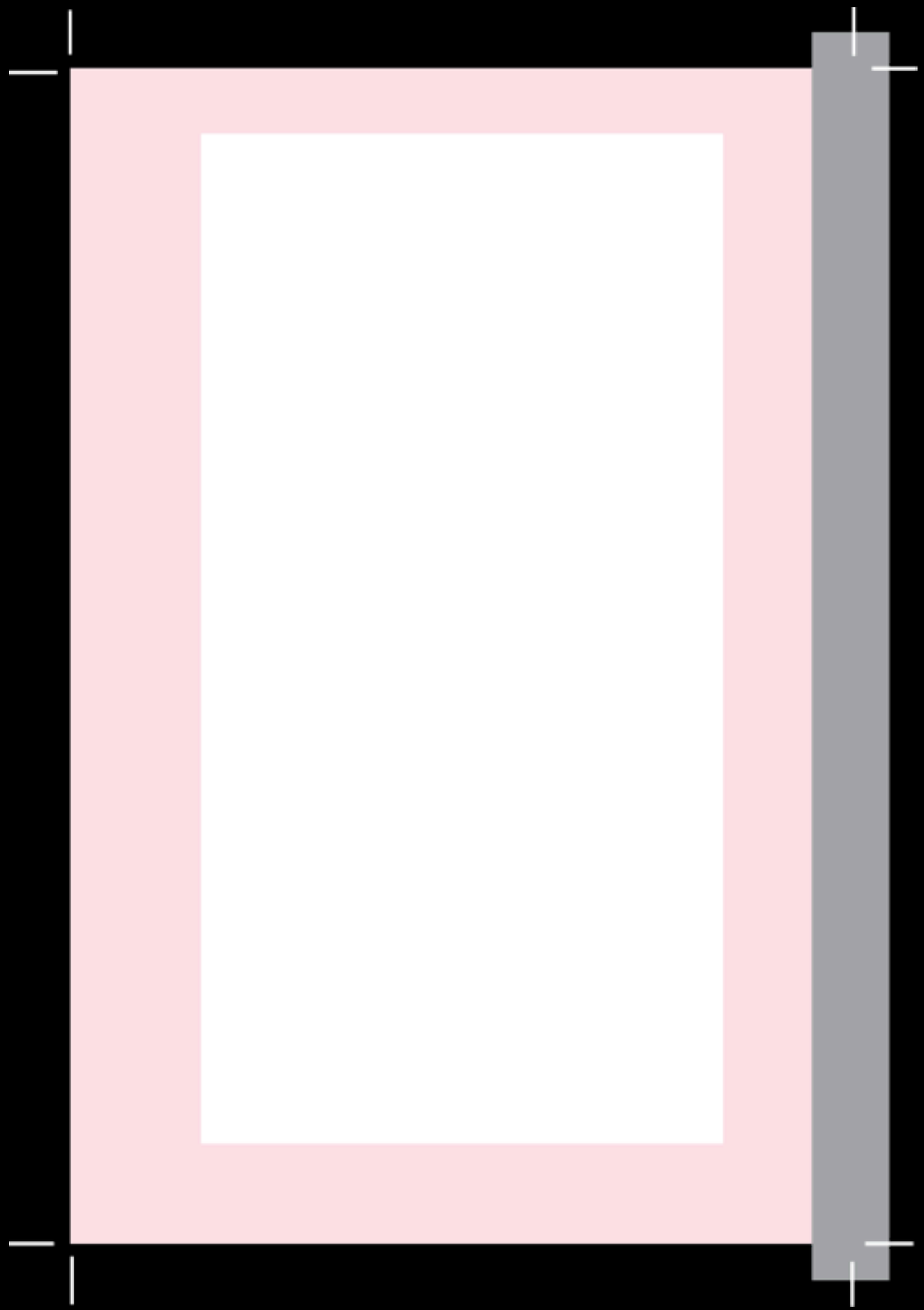
```
img {
image-resolution: from-image;
}
```

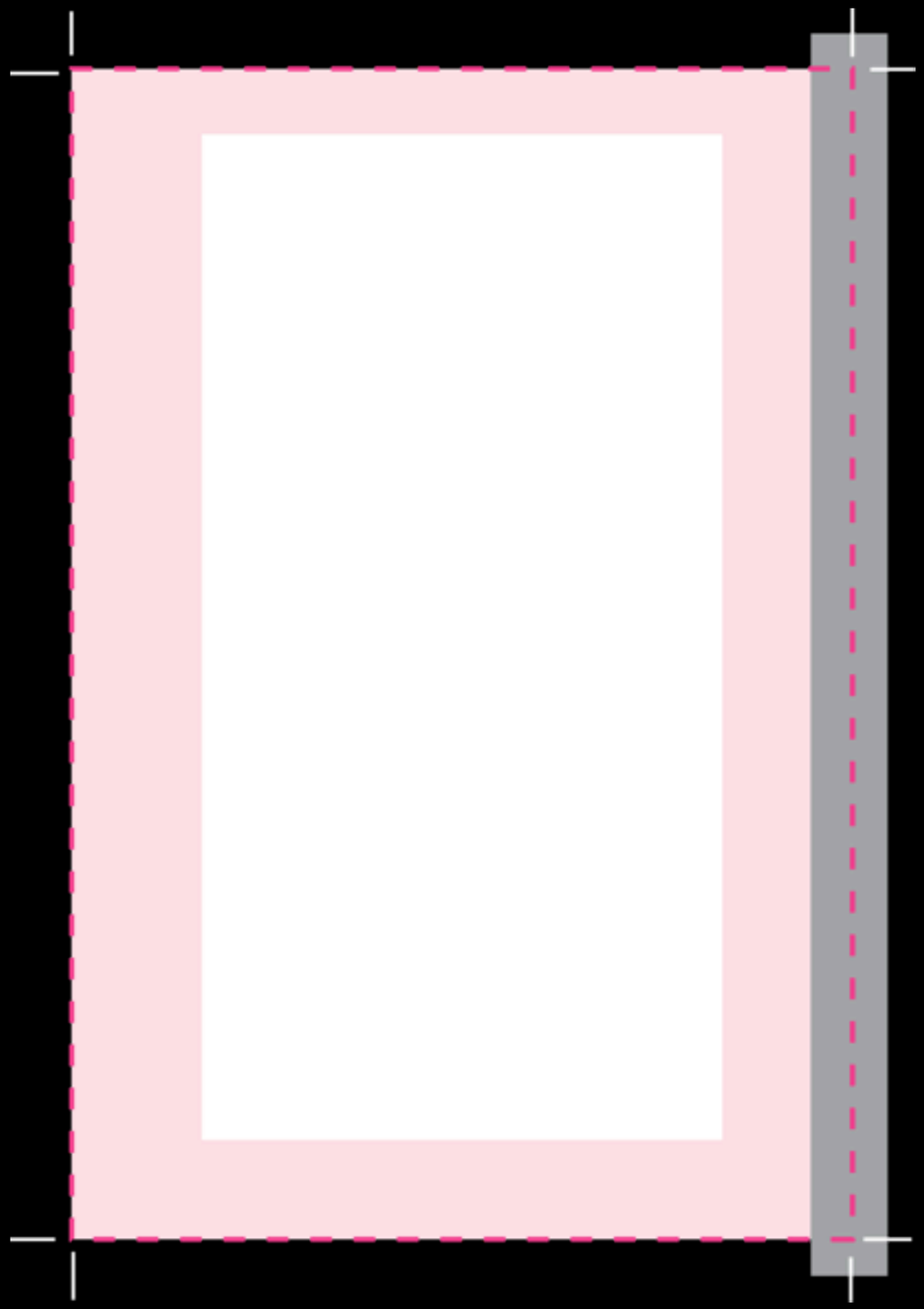
CMYK

```
hr {
color: device-cmyk(0,0,0,0.3);
}
```

```
hr {
color: #B3B3B3;
color: device-cmyk(0,0,0,0.3);
}
```

Marks & Bleeds



```
@page {
bleed: 6pt;
marks: crop;
}
```

```
@page:index {
  @right-top {
    border-right: .5in;
    margin-right: -.25in;
}
```