An EPUB Sampler

An EPUB Sampler

Rob Beezer

Biographical sketch with title This is about the author and has a title.

This sketch doesn't actually have a title in the PreTeXt source.

Website:

To all those who like reflowable electronic books.

Acknowledgements

Mitchel T. Keller has added a number of things to this sampler to continue to stress out the EPUB conversion and make sure it's all working right.

Contents

Chapter 1

One

The quick brown fox jumps over the lazy dog.

Some test cross-references:

- To the next chapter: Chapter 2

- To a figure much later: Figure **??**

- To some multi-line display math later: (2.1.2)

- To an abstract algebra textbook: [1]

Chapter 2

Two

This is the introduction to the chapter. We put some math

$$\int_a^b f(t)\,dt$$

in here for validation purposes.

2.1 A silly section.

This section just exists so that we can add `<introduction>` and `<conclusion>` tags to this chapter.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. In ultricies purus sit amet rutrum dictum. Donec sit amet ligula quis orci vestibulum tempor id in erat. Ut ut placerat lacus, sit amet feugiat lorem. Pellentesque sodales risus at eros malesuada, eget ultrices est consectetur. Praesent fermentum, ligula sit amet fermentum varius, elit eros imperdiet lectus, tempus condimentum quam elit in elit. Sed molestie mauris sem, sed laoreet elit iaculis ut. In mattis blandit ex, nec rutrum purus ullamcorper eget. Nullam maximus magna non elit euismod, non ornare nisl porttitor. Pellentesque commodo tempus viverra.

Curabitur ac hendrerit ligula. Aenean vitae nunc id elit convallis efficitur. Sed ultricies ut justo quis elementum. Sed eget eros venenatis, pellentesque risus sed, fermentum mi. Proin ipsum arcu, porta nec sem sit amet, sollicitudin faucibus erat. Quisque lacus lectus, pellentesque ut imperdiet sed, euismod vitae nibh. Donec dolor diam, elementum ac pharetra vitae, volutpat mollis augue.

Look at this! This is an aside. Please don't let it distract you.

Maecenas ex enim, lobortis et blandit sit amet, pretium in ante. Sed mollis sollicitudin nibh non consectetur. Vestibulum eget tortor sit amet felis iaculis fermentum. Sed eu nisl a urna cursus congue at nec nulla. Mauris lacinia molestie tristique. Maecenas aliquet rutrum venenatis. Vivamus quis metus sit amet est feugiat facilisis quis et massa. Aenean dui sem, dapibus at imperdiet ac, auctor sit amet arcu. Vestibulum eget porttitor est. Aliquam id pellentesque quam, vitae rhoncus metus. In congue condimentum malesuada. Mauris in condimentum eros, eget mattis nibh. Praesent et ex porttitor, lobortis nibh sed, cursus ante. Suspendisse dapibus vel risus eu pellentesque.

We end here with multiline display math to test linking from elsewhere into this multi-page section.

$$-9y = y'' - 6y' \tag{2.1.1}$$

$$y = c_1 e^{3x} + c_2 x e^{3x} \tag{2.1.2}$$

2.2 A Section with Subsections

2.2.1 A simple subsection

A `subsection` in a `section`.

2.2.2 Exercises

1. A single exercise buried in an `exercises` division that is a peer of a `subsection`.

2.3 Exercises

1. A lone exercise in an `exercises` division that is a peer of a `section`.

Hint. A little suggestion.

Answer. $y = x^2$

Solution. Maecenas ex enim, lobortis et blandit sit amet, pretium in ante. Sed mollis sollicitudin nibh non consectetur. Vestibulum eget tortor sit amet felis iaculis fermentum. Sed eu nisl a urna cursus congue at nec nulla. Mauris lacinia molestie tristique. Maecenas aliquet rutrum venenatis. Vivamus quis metus sit amet est feugiat facilisis quis et massa. Aenean dui sem, dapibus at imperdiet ac, $y = ax^2 + bx + c$ auctor sit amet arcu. Vestibulum eget porttitor est. Aliquam id pellentesque quam, vitae rhoncus metus. In congue condimentum malesuada. Mauris in condimentum eros, eget mattis nibh. Praesent et ex porttitor, lobortis nibh sed, cursus ante. Suspendisse dapibus vel risus eu pellentesque.

Wrapping up. This is the conclusion.

Chapter 3

A Bit of Math $y = mx + b$

This paragraph has some inline math, a Diophantine equation, $x^2 + 2y^2 = z^2$. And some display math about infinite series:

$$\sum_{n=1}^{\infty} \frac{1}{n^2} = \frac{\pi^2}{6}. \tag{3.0.1}$$

Look at the XML source to see how LaTeX macros are employed.

And a bit of multi-line display math:

$$\frac{d}{dx} \int_a^x f(t)\,dt = \frac{d}{dx}\left(F(x) - F(a)\right) \tag{3.0.2}$$

$$= \frac{d}{dx}F(x) - \frac{d}{dx}F(a)$$

$$= f(x) - 0 = f(x). \tag{3.0.3}$$

And multi-line math with an embedded cross-reference to a figure:

$$x^2 + y^2 = z^2 \qquad \text{Figure \textbf{??}}$$
$$a^2 + b^2 = c^2$$

Nice.

Theorem 3.0.1 Fundamental Theorem of Calculus. (Newton, Leibniz) *Let f be a continuous function on the interval $[a, b]$. If F is an antiderivative for f on $[a, b]$, then*

$$\int_a^b f(t)\,dt = F(b) - F(a).$$

Outcomes

- You have read the statement of Fundamental Theorem of Calculus.

- You have seen multiline math, and it is awesome.