A Style for Random Notes

Shawn O'Hare

February 7, 2017

Abstract

This document serves an example utilizing the styles provided by notes.sty

Contents

1   Page Layout

1.1   Headings

In his later books, [Tufte(2006)] Tufte starts each section with a bit of vertical space, a non-indented paragraph, and sets the first few words of the sentence in SMALL CAPS.

1.1.1 Definition (Gadget)**.**   A *gadget* is a thing. Each gadget comes equipped with some data.

Various special types of gadgets exist. For example, the widget is commonly encountered in practice.

1.1.2 Definition (widget)**.**   A *widget* is a type of gadget.

Below we consider some examples of gadgets. This text serves as an example of a paragraph inbetween two theorem-like environments.

Another paragraph to demonstrate space rendering between paragraphs. Sometimes a line break between each paragraph is desirable.

1.1.3 Example (Gadget)**.**   A set is a type of gadget.

This paragraph serves as some text before a remark, which in the amsthm style has no extra space above or below.

1.1.4 Remark (Some remark)*.*   Now, let's consider some remark.

This paragraph serves as some text after a remark, which in the amsthm style has no extra space above or below.

1.1.5 Theorem (Quotient Groups)**.**   *Let G be a finite group and H a normal subgroup. Then the left cosets G/H form a group under left multiplication via $(xH)(yH) = xyH$.*

Item		
Animal	Description	Price ($)
Gnat	per gram	13.65
	each	50.00
Gnu	stuffed	10.00
Emu	stuffed	5.00

Table 1.1: An example table

Proof. Since H is normal in G, for any $x \in G$ $H = x^{-1}Hx$. Multiply by x on both sides yields $xH = Hx$. It follows for any x, y in G that

$$
\begin{align}
(xH)(yH) &= x(Hy)H \tag{1.1} \\
&= x(yH)H \tag{1.2} \\
&= xy(HH) \tag{1.3} \\
&= xyH. \tag{1.4}
\end{align}
$$

From this it easily follows that G/H is a group. $\qquad\square$

References

[Tufte(2006)] Edward R. Tufte. *Beautiful Evidence.* Graphics Press, LLC, first edition, May 2006. ISBN 0-9613921-7-7.