Abstract

This document gives a few examples for using \LaTeX. You should use the given file (ITC0.tex) as a template for writing your scribes - change the name to have the correct lecture number that you’re scribing, such as ITC7.tex if you’re scribing lecture 7.

1 Examples of Theorems, Claims, Lemmas, and Proofs

Theorem 1 text of a theorem...

Proof starting a proof... and ending it

Claim text of a claim

Sketch of Proof (Informal) text of a proof sketch

We can also emphasize parts of the text

1.1 A subsection on primes

Definition 1 \(p\) is a prime if \(p\) is an integer that has no integral factors but itself and 1.

More examples

Lemma 1 text of a lemma

Example 1 text of an example

2 Mathematical Equations

Math equations can either be mixed with text, such as \(y = x + 2\) or \(2^{23} \text{ or } \frac{171}{272}\), or else they can be in a separate line

\[ Pr[x \geq y] \leq \frac{1}{3} \]

or on an automatically numbered equation

\[ \forall x | x \leq y \Rightarrow y \geq 0 \quad (1) \]

and the text continues in the next line.

More advanced equations

\[
V^{'(q_0,q_1)}_{s,0} = V^{'(q_0)}_{s,0} \cup V^{'(q_0)}_{s,1} \circ (V^{'(q_0)}_{1,1})^* \circ V^{'(q_0)}_{1,0} \\
V^{'(q_0,q_1)}_{s,2} = V^{'(q_0)}_{s,2} \cup V^{'(q_0)}_{s,1} \circ (V^{'(q_0)}_{1,1})^* \circ V^{'(q_0)}_{1,2} = V^{'(q_0)}_{s,1} \circ (V^{'(q_0)}_{1,1})^* \circ V^{'(q_0)}_{1,2}
\]
3 Itemizing

- first item
- second item

*** item with my bullet

■ any bullet will go

1. Items can also be numbered
2. and they can be nested

4 Writing text

The \LaTeX compiler does it’s own pagesetting. It converts any number of spaces to a single space, and concatantes sentences to fill the paragraph. You can spread one sentence over as many lines as you want, it will continue as if it was written in a single line. If you want to break a paragraph you need to leave an empty line.