Sample TeX File

Your name here

Contents

1 This is a section

Here is a list:
- Item 1
- Item 2

1.1 Here is a subsection

Proof.

(a) Numbered item 1

(b) Numbered item 2

□

Use \mathrm to make normal text in a math block, such as the d in the integral below:

$$\int_0^{\frac{\pi}{2}} \sin(x)\,\mathrm{d}x = -\cos(x)\Big|_0^{\frac{\pi}{2}}$$

1.1.1 Here is a subsubsection

You can align equations as follows:

$$x = y \tag{1}$$
$$x^2 = y^2 \tag{2}$$

You can also remove the equation numbers by adding an asterisk:

$$x = \frac{1}{2}$$
$$x^2 = \left(\frac{1}{2}\right)^2$$

Lemma 1. *This is a lemma*

$$\sum_{n=1}^{\infty}$$

2 Sample table

Name	**Meaning**	**Symbol**	**LaTeX**
Empty set	The set containing zero elements	$\emptyset$ OR {}	\emptyset
In	a is an element of b	$a \in b$	\in
Not in	a is not an element of b	$a \notin b$	
Subset	All elements of a are in b	$a \subseteq b$	\subseteq
Proper subset	A is a subset of b but not equal to b	$a \subset b$	\subset
Universal set	Set of all possible elements	U	
Union	Elements in either A or B or both	$A \cup B$	
Intersection	Elements in both A and B	$A \cap B$	
Set difference	Elements in A that are not in B	A - B	
Complement (sets)	Set difference U - A	$\bar{A}$ or A^c	
Power set	Set of all possible subsets of A	P(A)	
Cardinality	Number of distinct elements in A	$\|A\|$ or card(A)	