

CS 103: Mathematical Foundations of Computing

Problem Set #0

Ray Johns

June 22, 2020

1 My First LaTeX Document

There is a lot going on in the lines above this on the source document. The good news is that you don't need to worry about most of it. Those lines exist to make it easier to write certain things as we'll see later. We do need to change one line though. Around line 43 in the source is a box that says `author{YOUR NAME HERE}`. Replace YOUR NAME HERE with your name. Once you've done that, recompiling should show your name at the top of the document, as well as at the top of every page. Please edit this on all assignments as it helps us keep track of assignments. On future assignments, if you work with a partner, you should put both of your names.

The following section will have commented out snippets. Your goal is to uncomment them, and fix any errors that prevent compilation or make the LaTeX look weird. The **Guide to LaTeX** has everything you need to complete this.

2 The Importance of Comments

From our result, we conclude that α is less than β .

We can see the symmetric difference of these two sets, A, B is $A \Delta B$.

From the equation

$$x + 5 = 7$$

we can determine that

$$x = 2.$$

My favorite power of 2 is 2^{32} .

x_8 is before x_9 which is before x_{10} .

This next part will ask you to create some basic symbols. Once again, the **Guide to LaTeX** has everything you need to do this.

3 Expressive Expressions

1. Write A is an element of B using symbols and math mode.

$$A \in B$$

2. Write A is not equal to the empty set using symbols and math mode.

$$A \neq \emptyset$$

3. Write the equation x squared equals 4 divided by y in math mode.

$$x^2 = \frac{4}{y}$$

4. Write S is a set containing 2, 5, and 7 in math mode.

$$S = \{2, 5, 7\}$$

That's it! Compile once you are done and download that PDF!