

L^AT_EX Practice Assignment 1

Due: Week 3 Monday by 5:45pm (Part A in person and Part B via Overleaf invite)

L^AT_EX Practice Assignment 1 Part A (Matching) - submit in person

Goal: The point of this part of the assignment is to show you how things typed in the TEX file correspond to the PDF output and vice versa. Use the 11-page handout (distributed during class) titled “[LaTeX Practice Assignment 1 - Matching Part](#)” to complete the following tasks.

- (Task 1) The goal of this task is to help you see how parts of a PDF output document are created from L^AT_EX code in the corresponding TEX document.
- (a) For each numbered part of the “[LaTeX Practice Assignment 1 - Matching Part](#)” PDF handout, circle the corresponding part of the “[LaTeX Practice Assignment 1 - Matching Part](#)” TEX handout and number it with the appropriate number.
 - (b) Type up a list of short written comments about how each numbered item in the PDF handout corresponds to a specific part of the TEX handout. The comments should focus on what the “LaTeX code” does. This list will serve as a “reference guide” as you continue to learn and work with LaTeX.
- (Task 2) The goal of this task is to help you see how LaTeX code in a TEX document creates parts of the corresponding PDF output document.
- (a) For each lettered part of the “[LaTeX Practice Assignment 1 - Matching Part](#)” TEX handout, circle the corresponding part of the “[LaTeX Practice Assignment 1 - Matching Part](#)” PDF handout and letter it with the appropriate letter.
 - (b) Type up a list of short written comments about how each lettered item in the TEX handout corresponds to a specific part of the PDF handout. The comments should focus on what the “LaTeX code” does. This list will serve as a “reference guide” as you continue to learn and work with LaTeX.

Submitting LaTeX Practice Assignment (Part A): After completing Tasks 1 and 2 above, turn in your completed “[LaTeX Practice Assignment 1 - Matching Part](#)” Handout AND turn in a printout of your two lists of short written comments (all stapled together) at the start of class next Monday. Remember to write your name on top of your assignment!

L^AT_EX Practice Assignment 1 Part B - submit via Overleaf

Goal: The point of this part of the assignment is to give you “hands-on” practice with how things typed in the TEX file correspond to the PDF output and vice versa.

- (Task 3) (3a) To begin, login to <https://www.overleaf.com>.
- (3b) Click “New Project” on the top left, select “Blank Project”, and title this project “MATH2794W YourName”. This is where you will create and store all of your assignment files throughout the semester.
- (3c) Delete the default “main.tex” file by first clicking on the down-arrow icon next to the “main.tex” in your project.
- (3d) Click “Menu” on the top left, scroll down to “Spell Check”, and make sure that the setting is set to “English (American)”. This will permanently turn on spell check. Keep all the other settings as they are, unless you are familiar with Overleaf.
- (3e) Use the “New Folder” icon (shaped like a folder) on the top left to create a new folder and title your folder “assignment1”.
- (3f) Download the three files:
- [egunawan.github.io/math2794w/hw/01/intro1.tex](https://github.com/egunawan/math2794w/hw/01/intro1.tex)
 - [egunawan.github.io/math2794w/hw/01/Bib.bib](https://github.com/egunawan/math2794w/hw/01/Bib.bib)
 - [egunawan.github.io/math2794w/hw/01/fig1.pdf](https://github.com/egunawan/math2794w/hw/01/fig1.pdf)
- and upload these three files to your “assignment1” folder in Overleaf using the “Upload” icon on the top left.
- (3g) In your new “assignment1” folder, click on the “[intro1.tex](#)” file on the left and then press “Recompile” button. When you are done, the PDF output that gets created should match the PDF file
- [“egunawan.github.io/math2794w/hw/01/templateintro1.pdf”](https://github.com/egunawan/math2794w/hw/01/templateintro1.pdf)
- exactly. You can use the icon on the top right to toggle between “full screen” and “split screen” views of the PDF preview screen. You can also download either the source code or the PDF of this project by clicking on “Menu” on the top left and “Download”.
- (3h) If you cannot see the PDF preview or download, please click on “Menu” on the top left, go to “Settings”, and choose a main document. Select the .tex file as your main document (as opposed to the .bib file). Click “Recompile” to attempt to view the PDF. If you still cannot view the PDF, please post on Piazza.
- (Task 4) Make the following changes, one at a time and in order, to the “intro1.tex” file in Overleaf. Note that every change made in Overleaf is autosaved. Click “Recompile” (or set auto-compile to on) after every change you make and view the PDF in “full screen” to see the change. Note that you will need to use Google (or an alternative search engine) to look up how to use various features of L^AT_EX.
- (4a) Change the title to “LaTeX Practice Assignment 1 (Part B)”.

- (4b) Change the author to your name (in “First Name Last Name” format).
- (4c) Change the date to the assignment due date (in “Month Day, Year” format).
- (4d) Replace the bullet point list in the “Introduction” section by a numbered list (using “enumerate”). In the same list, replace the words in *italic text* with the same words in **boldface text**.
- (4e) Replace all four occurrences of the equation $1 + 1 = 2$ in the “Equation Stuff” section with the inequality $y \leq x^2 + 1$.
- (4f) Replace

$$\left(\frac{\pi^2}{2} + 0 - \pi\right) - \left(\frac{\pi^2}{8} + 1 - \frac{\pi}{2}\right)$$

with

$$\left[\frac{\pi^2}{2} + 0 - \pi\right] - \left[\frac{\pi^2}{8} + 1 - \frac{\pi}{2}\right].$$

- (4g) Replace

$$\frac{3\pi^2}{8} - 1 - \frac{\pi}{2}$$

with the equivalent expression

$$\frac{3\pi^2 - 8 - 4\pi}{8}$$

- (4h) Change the width of Figure 1 to 5 inches.
- (4i) Add a fourth column to Table 1. Call the new column “Column 4” and make its entry be w^2 . In the same table, center all four of the columns of your new Table 1. Hint: Determine what the “r”, “c”, and “l” do to each of the three original columns of the table.

- (Task 5)
- (5a) In the “Bib.bib” file in Overleaf AND towards the end of your “intro1.tex” file in Overleaf, replace “Article” by “Article1”, replace “Book” by “Book1”, and replace “Website” by “Website1”. This is changing the names of the labels given to each of the three references.
 - (5b) Recompile your finalized “intro1.tex” file and make sure everything on the PDF file looks correct.
 - (5c) Click “Menu” on the top left and, from the top “Download” menu, click on “Source”. This will download a zipped folder that can be saved in your computer for backup.

Submitting LaTeX Practice Assignment (Part B): After completing tasks 3, 4, and 5, share your Overleaf project with me via my university email address.