

Introduction to LaTeX Exercise

Rmk. If you already use LaTeX and have LaTeX loaded on your computer, you need not use Overleaf. Just be sure you can download a LaTeX file from the homework page to your computer. Otherwise, just use the (free) Overleaf.

Step 1. The link [Getting started with LaTeX](#) (which is also posted on the [course homepage](#)) walks you through Step 1. The step numbers in brackets refer to the steps in the handout [Getting started with LaTeX](#).

- (a) Create and log into your Overleaf account. [See Steps 1–3 in [Getting started with LaTeX](#).]
- (b) Create a project named ER1.1.3. [See Steps 4-6.]
- (c) Into your project ER1.1.3, load the corresponding Latex file provided on the course homework page. [See Step 7.]
- (d) (Re)compile your newly uploaded LaTeX file. You should then be seeing this PDF file the last window of your Overleaf. [See Step 8.]

You are now ready to LaTeX Exercise 1.1.3.

Step 2. Statement of the ER.

► Recall the truth table for a conditional statement P implies Q .

P	Q	$P \implies Q$	
T	T	T	line 1
T	F	F	line 2
F	T	T	line 3
F	F	T	line 4

In the conditional statement $P \implies Q$, the P is called the **hypothesis** and Q is called the **conclusion**.

Consider the below two conditional statements.

- 1. If $2 = 3$, then $5 = 5$.
- 2. If $2 = 3$, then $5 = 6$.

For each conditional statement, say whether the statement is true and false. Also indicate which line from the above truth table you used to arrive at the validity (true-false/ness) of the statement. Put your solution below the dotted line. Remember to use complete sentences.

Hint. This ER is a variant of the book's ER 1.1.3 on page 12, which is a starred exercise (so answer in back of book).

Hint. To help you with your first LaTeX assignment, below the dotted line the solution is started for you (just finish the sentence). Also here is an example. Consider the below conditional statement.

- 17. If $2 = 2$, then $5 = 5$.

17. The conditional statement in 17 is true, as seen by line 1 of the above truth table.

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- 1. The conditional statement in 1 is
- 2. The conditional statement in 2 is