

Preparing your scribe

1 General Instructions

Thank you for volunteering to write up notes on today's lecture. If you scribe on a Thursday we ask that you please bring your notes by the following Thursday. At this phase bring *printed* notes, do not send us files. That version will be marked for corrections by us and you should correct the files accordingly and have a final version ready by the following Thursday morning, so that it can be distributed to the class within two weeks from the original lecture.

To help you with your notes, we can let you photocopy the notes used in giving the lecture, and notes on the same subject in past courses. Please ask for help in understanding the material or if you have a question about how it should be presented.

In order to make the notes more uniform and easier to read, we are providing several macros for theorems and such. Also, we ask that you follow a few stylistic conventions:

Please write your notes as if you were explaining the material to another student, rather than as minutes of a meeting. That is, don't write things like "Today we started discussing..." or "next time, we will..." or "then, someone asked the question..." Just explain the material as clearly as you can.

If you need to refer to an earlier lecture, use the lecture number. For example, "In Lecture 6 it was shown that..." To refer to a later lecture for which you don't know the number, just say something like, "This impossibility result will be discussed further in a later lecture." (At the end of the course, I will go back and fill in the appropriate lecture numbers.)

If material from a handout is covered in lecture, then we would like to include the text of the handout as a part of the notes to make them more self-contained. To make your job easier, we will mail you the latex files for the relevant handouts, and you can merge them in at the appropriate places. Also, you may want to annotate the handout as you see fit. Some handouts and transparencies presented in class are pictures which cannot be latex-ed, and in that case they should be scanned in order to be added to the the lecture notes. Contact us regarding usage of a scanner.

Your grade on the scribe will be based primarily on the **first** draft that you hand in. Subsequent changes will have only a secondary effect on the grade. Therefore, hand in what you consider *your final version*, and not a draft you expect us to clean up for you.

2 Getting Started

1. If you are unfamiliar with LaTeX, check the web page at

`http://www.math.tau.ac.il/~shamir/atga/help.html`

2. To get started please create a sub-directory called `ge` in your home directory, and copy there the files you receive from us. Also form links to the files in `~rshamir/bib/`.
3. Edit the latex file, the bib file and add figures if necessary.
4. Executing the command “`pdflatex filename`” will create a pdf file from your LaTeX source. Note that it is required to run `pdflatex` once, then `bibtex` and then `pdflatex` twice. Note that the final `pdflatex` run should end without any warnings.
5. The final `pdflatex` file can be viewed with any Acrobat reader and printed out. Continue to edit your scribe until the results looks satisfactory.
6. The name of your tex file should be `lec##.tex`.

3 Labels

All the labels you create in your tex file should be in the following format

```
\label{lec#:<type>:<name>}
```

where `type` is theorem, lemma, corollary, claim, fig, etc.

For example, `\label{lec1:thorem:PerfectGraphTheorem}` or

```
\label{lec1:fig:interval graph}
```

4 Bibliography

For most algorithms, theorems and lemmas, you need to add a references to the papers they first appeared in. This should be done in the following way: Suppose you need a reference to the paper “Is $P=NP$?” by Alice and Bob. First, check if it appears in the .bib files we supply (remember that you should have links to these files in your directory). If not, you need to create a file named lec#.bib, and there you create the following entry:

```
@Article{AliceBob99,  
author = "A. Alice and B. Bob",  
title = "Is {P=NP} ?",  
journal = "SIAM J. Computing",  
year = "1999",  
volume = "1",  
pages = "1--50",  
}
```

(the curly brackets are needed to keep the capitalization of the expression inside). Note that you should create the label for the entry by concatenating the names of the authors and the two last digit of the year (in this case AliceBob99). Now, in your tex file, you can add reference to this paper using the `\cite` command:

```
\begin{theorem}  
(Alice and Bob, 1999 \cite{AliceBob99})  
$P \neq NP$.  
\end{theorem}
```

(use the exact style as above for giving references in theorems)

Every time you add references to your scribe and want to create a DVI file you should re-make the final version, to get you bibliographies right.

5 Figures

You can generate figures in any graphic software. Once generated they should be saved in a png file format and named lecXX_figX.png in the appropriate directory. Some of

the older tex files contain outdated versions of figure insertion codes. You should use the following:

```
\begin{figure}[X1]
\centering{
\includegraphics[scale=X2]{lecXX_figs/XXXXX.png}
} \caption{XXXX. } \label{lecXXX:fig:XXXX}
\end{figure}
```

X1 should be replaced by t/h/b, depending on the desired location of the figure on the page, and X2 with an appropriate scale for the image. Also make sure that `\usepackage{graphics}` appears in the header of your tex file.

6 Before handing in your Scribe:

You will hand in your final scribe both in print and in files. Below is a summary of instructions for the files conventions. For more on this convention reread the instructions in `template.tex`.

1. I will need your final latex file and ALL other related files you are using or including to make `pdflatex` run.

Do not change anything in style files. If you need to make definitions, put them in your text file.

Please note your changes, so I'll be able to add them to the style files.

2. Make sure ALL of the files (scribe, figures original) start with the prefix `lec##_` where `##` is your two-digit lecture number.
3. Put your scribe in file `lec##.tex` in your directory `~/ge/` and your figures in `~/ge/lec#_figs/lec#_<name>.suf` where `.suf` is `.ps` or `.fig` or `.eepic` or `.tex` according to the type of the file.
4. Clear `~/ge/` and `~/ge/lec#_figs` from all other files.
5. Spell check your scribe! The Unix command for spell checking is 'ispell'.
6. After all the above is done, run `pdflatex` again on your file, to see that input file names are consistent with those inside the latex files and nothing is missing.

7. **READ your scribe.** Check that pages and lines do not break in bad places. Check for typ-os etc.
8. Make sure the references appear at the end of the document, and that all citations inside the text are correctly expanded.
9. When handing in the first iteration of the scribe, please:
 - (a) Use doublespace style.
 - (b) Give me a printout of the scribe.
10. when handing in the second and third iterations, please:
 - (a) Hand in a printout of the new version
 - (b) Hand in also the previous (marked) iteration, with all my remarks either marked “check “ (V, with a pen), or with a comment why you didn’t correct them.
 - (c) Send me (Igor) e-mail with the zip-ed ge directory attached.