LATEX Exercises

0 Before starting...

1. What is an article?
2. Which elements can appear in an article?

1 Basic LATEX Stuff

1. Create a new directory called LatexIntroPaper.
2. Create a new .tex file called latexExample.tex in your LatexIntroPaper directory.
3. Open the file with TexnicCenter and make a very simple document with some text. Specify the documentclass to be "article." (\documentclass{article}) Do not forget
\begin{document}
%YOUR TEXT
\end{document}
)
4. Generate a .pdf file using pdflatex and view it using acroread.
5. Add title, author, and date information and make a title appear at the top of the page.
6. How do you put the date out?
7. Include some bold and italic text. Experiment with other font styles.
8. Change the size of the letters. Experiment with different formattings
9. Include a manual line break like this
and
<div align="center">center some text.</div>
10. What is the difference between \\ and an empty line in the TEX code?
11. Arrage text to
the left
and to
<div align="right">the right</div>
12. What is % doing?
13. How do I write % in a TEX file?
14. Are there any other symbols for which I need special ways of writting?

2 Sections and Referencing and ...

1. Add to your document three sections, a few subsections, and a subsubsection.
2. Label one of the sections you created and create a reference to this section. You should have something like this:

In Section 1 you should have made a simple document.

Add another label and reference to see that LATEX takes care of the numbering for you.
3. Create some footnotes.
4. Change the layout to two columns
5. Change the general font size

3 Lists

1. Add a bulleted and numbered list somewhere in your document. See if you can figure out how to nest them.
2. Try out a description (descriptive) list. Can you say what it is?
3. Create the following list:

1. Item 1

2. Item 2

    → Item a

    → Item b

    → Item c

3. Item 3

    → Item a

    → Item b

    Text A: Item A
    Text B: Item B

    → Item c

4. Item 4

3 Figures and Tables

1. What are floats in LaTeX?
2. Create a table to your document. Then add a caption and reference.

Header 1	Header 2	Header 3
A	B	C
D	E	F

Tabel 1: Test Table

3. Create also the following tables:

a	b
c	d

Table 1: DATA for ...

Column 1	Column 2	Column 3
1	Value 1a	Value 2a
2	Value 3b	Value 4b

Table 2: Table 1

4. Make references to several tables. Analyze how LaTeX is working.
5. How to create a multicolumn?

6. Add an figure of any kind to your document. Again add a caption and reference. Note that not all image formats are supported by pdflatex. Recommended file formats are .png and .jpg. Do NOT use .eps or .gif files, as these don't work with pdflatex. Convert pictures if necessary. What package do I need?
7. Align picture left, right and center
8. Change the size of the picture
9. Rotate the picture

4 BIBTEX and References
1. Create a BIB file using JabRef.
2. Insert the bibliography into your TEX file
3. Make a reference to one of your entries in the BIB file
4. Compile
Note you may need to compile your .tex file several times to get the citations to appear properly.

5 Other (such as Math Mode)
1. The real power of LaTeX fis with its ability to format math expressions. Write whatever cool math equation you'd like. Write some inline math expressions as well: $E = mc_2$.
3. Experiment with other symbols and operators. You can find a lot of information about what is possible with math mode here: http://www.ams.org/tex/amslatex.html

6 Projects
1. Create a project in TexnicCenter.
2. Copy the text from the previous LaTeX file into your project.
3. Which are the advantages? How would it be helpful for long documents?

7 Looking Stuff Up
It's impossible to cover everything that LaTeX can do in a few days. But luckily its very easy to figure out how to do something we haven't covered (or you forgot about). Just Google it! You'll be happily suprised how easy it is to find examples for exactly what you're looking for. If you are still stuck, someone will be able to help you

Test yourself

A LaTeX file has the ending ._____ .

In a LaTeX file it appears **only once** the following commands:

_____

In LaTeX

- Classes are _____

- Commands are _____

- Environments are _____

- Packages are _____

- A commentary is: _____ (not only in LaTeX)

- I create a commentary with _____

To add a picture I need the package: _____

Floats in LaTeX are _____ . Examples: pictures and _____.

I make references with the command _____ . The element I make reference to is marked with the command _____.

I make citations with the command _____ .

Bibliography is usualy saved as a _____ file.

A bibtex entry is _____

A bibtex-key is _____

There are _____ types of lists. These are: _____