Introduction to LaTeX
Exercise Sheet 3 (Group 5)

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8th April 2014

The `.tex` and related image files for your solutions to this exercise sheet should be emailed to `clifford.gilmore@helsinki.fi` before 15:00 on 15th April. The produced document should contain enough text to fill two pages. If you can't think of anything to write then you can find random text from Lorem Ipsum at http://www.lipsum.com/

The subject line of the email should be *Latex Exercises 3* and the file name should be of the form `SurnameExercise3.tex`, e.g `GilmoreExercise3.tex`.

1. Create a document titled *LaTeX Solutions 3*, with you as the author.

2. Create a section called *My First Table* and using the `tabular` environment add the below table to this section.

	Born	Associated Maths
Archimedes	287 BC	$A_r = \frac{gL^3 \rho_\ell (\rho - \rho_\ell)}{\mu^2}$
Leonhard Euler	1707	$e^{i\pi} + 1 = 0$
William Rowan Hamilton	1805	$i^2 = j^2 = k^2 = ijk = -1$
Évariste Galois	1811	$\mathrm{Gal}(\mathbb{C}/\mathbb{R})$
Amalie Emmy Noether	1882	$\sum_\nu \frac{\partial j^\nu}{\partial x^\nu}$
Stefan Banach	1892	$\|xy\| \leq \|x\|\|y\|$
Alice Roth	1905	$f(e^{i\phi}) := \lim_{r \to \infty} F(re^{i\phi})$
Lars Valerian Ahlfors	1907	$\mathrm{Area}(\Omega/\Gamma) \leq 4\pi(N-1)$

3. Put the above table into a `table` environment and add a caption.

4. Create a new section called *Pictures* and add a picture (of your choice) to your document using a `figure` environment. Add a caption.

5. Add labels to the above table and figure and reference each of them somewhere in the document's text.

6. Add a table of contents to your document and generate a list of figures and a list of tables after the table of contents.

7. Create a section with the title *Functional Analysis and Related Topics*, containing three paragraphs and with each paragraph containing at least four lines. (You can copy-paste random text to fill the paragraphs)

8. Recreate the bibliography from the end of this exercise sheet in your document.

9. Cite a reference from your bibliography somewhere in the section *Functional Analysis and Related Topics* such that each reference is cited once.

References

[1] Paul S. Bourdon. Invariant manifolds of hypercyclic vectors. *Proc. Amer. Math. Soc.*, 118(3):845–847, 1993.

[2] Kit C. Chan and Ronald D. Taylor, Jr. Hypercyclic subspaces of a Banach space. *Integral Equations and Operator Theory*, 41(4):381–388, 2001.

[3] Alfonso Montes-Rodríguez. Banach spaces of hypercyclic vectors. *Michigan Math. J.*, 43(3):419–436, 1996.