# Introduction to $\mathrm{ET}_{\mathrm{E}} \mathrm{E}$ X Exercise Sheet 3 (Group 5) 

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18th March 2013

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 25th March. 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 $L_{A}^{A} T_{E} X$ Solutions 3, with you as the author.
2. Create a section called My First Table and using the tabular environment in this section add the below table.

|  | Born | Associated Maths |
| :--- | :---: | :---: |
| Archimedes | 287 BC | $A_{r}=\frac{g L^{2}{ }^{3} \ell\left(\rho-\rho_{\ell}\right)}{\mu^{2}}$ |
| William Rowan Hamilton | 1805 | $i^{2}=j^{2}=k^{2}=i j k=-1$ |
| Évariste Galois | 1811 | $\operatorname{Gal}(\mathbb{C} / \mathbb{R})$ |
| David Hilbert | 1862 | $S=\frac{1}{2 \kappa} \int R \sqrt{2 \kappa} \lambda^{4} d^{4} x$ |
| Amalie Emmy Noether | 1882 | $\sum_{\nu} \frac{\partial^{\nu}}{\partial x^{\nu}}$ |
| Stefan Banach | 1892 | $\\|x y\\| \leq\\| \\|\\| \\| \\|$ |
| Lars Valerian Ahlfors | 1907 | 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 Top$i c s$, 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] P. Ara and M. Mathieu: Local multipliers of $C^{*}$-algebras (Springer Monographs in Mathematics, 2003).
[2] C. G. Grosse-Erdmann: Universal families and hypercyclic operators, Bull. Amer. Math. Soc. 36 (1999), 345-381.
[3] E. Saksman and H.-O. Tylli: Multiplications and elementary operators in the Banach space setting, in Methods in Banach space theory. (London Mathematical Society Lecture Notes 337, CUP, 2006), pp. 253 292.

