Getting started with LaTeX

1 What is LaTeX?

LaTeX is a typesetting language specifically for creating mathematical documents. Documents prepared in LaTeX must be compiled, meaning that you write the source code in a file with the `.tex` extension and then execute a program that interprets this to generate the PDF output.

LaTeX can be written using any plain text editor (Wordpad, Notepad, Sublime, Visual Studio, etc.). However, you will need to install a dedicated program that can interpret this data and compile the PDF, along with the distribution which tells the program how to do this.

2 Methods of compiling .tex files

I recommend choosing one of two methods:

- **Simplest method:** Create an account on Overleaf (`https://www.overleaf.com/`). This is a browser-based solution (similar to Google docs) that many staff use and which does not require an installation. It can also be used from any of the university computers.
    1. Register an account.
    2. Click on "New Project" > "Upload Project" > "Select a .zip file."
    3. Navigate to and choose the compressed folder `minimal_template.zip`, which can be downloaded from the Project Blackboard site.
- **Local installation:**
    1. First install a "TeX distribution" - either TeX Live (`https://www.tug.org/texlive/`) or MikTeX (`https://miktex.org/howto/install-miktex`).
    2. *Then*, if it was not already included in the previous package, install an editor such as TexMaker (`https://www.xm1math.net/texmaker/`). This is the program that you will use to write and compile your documents.
    3. Download the folder `minimal_template.zip`, and open the file `minimal_template.tex` in the editor. Make sure that all the other files in the folder are retained in the same folder as they will all be needed.
    4. Click "compile" / "build" / "go" or the equivalent (such as a big green arrow).

If your chosen method has worked, you will now have a PDF document created, along with some auxiliary files.You can rename and begin to edit this `minimal_template.tex` file as required.