MA061 Exercises 5: LaTeX — Last exercise for MA061

1. **(This bit will not be assessed.)** Visit `www.wolframalpha.com` and as it

   (a) What it thinks about $\sinh x$. (How much of what it says is familiar to you?)

   (b) Ask it `integrate x cos x` (You might be interested in the 'show steps' button.)

2. Prepare a small mathematical document `ex5.tex` using LaTeX and containing a calculation of $\int_0^\pi x \cos x \, dx$. Include your name in the document.

   To do this read at least a few basic parts of `http://www.maths.tcd.ie/~dwilkins` (notes by Dr. David Wikins about LaTeX).

   Prepare a source file using a text editor (like `pico` or `emacs`) and containing your LaTeX code. It will look a bit like this

   ```
   \documentclass[12pt]{article}

   \begin{document}
   \title{MA061 Exercise 5}
   \author{Richard M. Timoney}
   \maketitle

   Here is my explanation of how to calculate
   $\int_0^\pi x \cos x \, dx$.

   \end{document}
   ```

   To see what it comes out like, save the text as `ex5.tex`, quite from the editor, then

   - `latex ex5`
     If there are errors, type `x`, to exit, then go back to your document with (say) `emacs ex5.tex`, fix the mistake, and repeat `latex ex5`
   - use `xdvi ex5` to see the formatted output and to see that you are happy with it.

Remark. You might find LaTeX helpful when you get to prepare your final year project!

Send in your work electronically by using the program `submit-work` to send in the file `ex5.tex`. Submit under `MA061:5`.

Richard M. Timoney (March 14, 2011)