

Lab 7: The Final Lab!

This semester, we've developed techniques for solving and analyzing differential equations using Maple. Over the next couple of years, you're going to forget what we did.

For your last lab, put together a summary of what we've done this semester in a single packet. Your audience is yourself several years in the future, so before you start, think about how you want to organize your summary. Pay particular attention to the Maple commands we've learned and what things needed to be defined in those commands.

Your future self might be best served by organizing the paper by the type of differential equation you're trying to solve, but again, that's up to you. Be sure to include enough examples and graphs so that you'll know what to do and what to look for! The goal of this lab is both to give you something to cherish, and for you to consider "the big picture" of differential equations.

There is no minimum or maximum number of pages. You should be complete, but not verbose. Keep it short, but give all necessary detail.

A L^AT_EX typesetting hint: If you include Maple commands (and hopefully you will include lots of them!), it's convenient to use "verbatim" mode. In this environment, L^AT_EX will type exactly what you type. For example, the following Maple commands:

```
deqn:=diff(y(t),t$2)+diff(y(t),t)-y(t)=cos(t);
dsolve(deqn, y(t));
```

were typeset as:

```
\begin{verbatim}
deqn:=diff(y(t),t$2)+diff(y(t),t)-y(t)=cos(t);
dsolve(deqn, y(t));
\end{verbatim}
```

Should I include Maple Worksheets? You can, but your paper will probably read better if you embed the Maple commands and figures in your document.

The final lab is due by 5PM on **Monday, May 19th** Come see me in the Fall if you want the hardcopy with my comments back. I can email you a summary of your grades, but I can't give you your final grade until after the reports come out.