

It is very likely that my handouts will include much of the information needed for your theory section. You should still include this information (assume that your reader does not have access to my handouts). In addition, do not refer to, or reference, my handouts. If you need to reference a specific equation contained in one of my handouts, either derive it or include the appropriate reference (which I should have included in the handout).

### *Writing down equations*

Theory sections tend to involve equations. There are four rules about equations in text:

**Rule 1:** Don't write equations in the body of the text; give each equation a line of its own. (Set aside three or four lines in your printout if you write in equations by hand.) You may break this rule for very simple equations that you will not need later. Setting equations apart from the text makes the text read more smoothly, and also signals to the reader that it's time to go into *math mode*. You also get more room for writing the equation.

**Rule 2:** In the text immediately following an equation, define all variables that have not already been defined. Variables in text should generally be italicized (except for vector or matrix variables).

**Rule 3:** Give every equation a number (except the simple ones mentioned in rule 1). This way you and the reader can find them easily later on.

**Rule 4:** Unless you have a good technical typesetter that will let you set equations in standard form (as in LaTeX or the MS Word Equation Editor), *don't* try to typeset an equation or parts of it on the printer. Write the *entire* equation in by hand, instead. Don't forget to enter the equations after you print out your report! Missing equations are a sure tip-off that you didn't proofread your report.

### CHECKLIST FOR THE THEORY SECTION:

- Start with defining equations.
- Show non-obvious intermediate algebraic steps.
- Put each equation on its own line.
- Define your variables.
- Give each equation an equation number.