Review for exam 3

Math 2574 exam 3 will be held on Thursday April 28. It is on sections 5.1-5.6, 6.1-6.3, 7.1-7.3.

Here are some extra questions to help you with review for exam 3. These questions are intended to help, not to be a list of things which, by implication, you should or should not know. I have tried to find a question for each important topic, but I may have missed some out. You should make sure that you can do each of the questions fluently, so that if you are slow on some questions you should do some more so as to get practice. For some topics there is more than one question. You should still know topics if I have missed them out.

Section 5.1: 15, 20, 25, 34
Section 5.2: 1, 14, 22
Section 5.3: 8, 10, 12, 16, 19, 28, 36, 49 (this is too many: do a selection)
Section 5.4: 4, 16, 17, 19
Section 5.5: 4, 11, 21, 27
Section 5.6: 2, 12
Section 6.1: 25, 26
Section 6.2: 8. 12, 20, 23
Section 6.3: 5, 28
Section 7.1: 8, 11, 20
Section 7.2: 5, 17
Section 7.3: 3, 9

In section 5.4 you don't need to know the derivation of simple harmonic motion for a pendulum or the relationship between the period and the length of the pendulum.

In section 5.5 you don't need to know the method of variation of parameters.

In section 5.6 you don't need to know the terms 'beats', 'static displacement', 'amplification factor'.