Math 216 homework, Prof. Sachs Due, Wednesday Feb. 15

Short writing conceptual question: Thinking about the second-order version of our previous thinking problem, consider the differential operator $L = a\,D^2 + b\,D + c\,I$, where D is differentiation with respect to t. What happens when you calculate $L[\mathrm{e}^{rt}]$. Then play for a bit on what use you might make of your result. Try to pose some interesting questions, declaring victory even if you can't resolve them after some attempt to do so!

Problems from text:

Section 1.10: Problem 2 – symbolic computing might be useful

Section 1.11: Problem 9

Section 1.12: Problems 1, 5