This assignment is different from many Math assignments. You are not asked to compute or prove anything. You are being asked to consider a mathematical model of a real world problem (valuing a property) and then to discuss the model’s possible shortcomings. I have given you a copy of a paper ‘Imperfect Price Information and Valuation by Comparable Sales’ by D.G. Wiltshaw in the Journal of Property Research. Please comment on the validity of the models presented on page 87 and then on page 95. Don’t worry about typos such as the first inequality in (27) which should have right hand side $45000 + (49000 - 45000) \times 0.025$.

I am seeking comments on all aspects of the model. Does the basic idea that you can predict prices from comparable sales make sense? Is linearity sensible? Is it appropriate to minimize or maximize? etc. I do not find the model as given very convincing. Be a critic. Make alternative suggestions. You probably need some general knowledge about real estate prices in Vancouver or elsewhere.

This paper was shown to me while I was on sabbatical in Australia. A student in Commerce came to me with some data and a run of the LP on page 87 that was infeasible! Obviously, the student was puzzled how to interpret this. Roughly speaking, if there are more equations than unknowns then you would expect infeasibility, even before you impose positivity. This example might help you start in thinking about the problem.