ENG 106 Homework #4 (due 8 Feb)

Benefit/Cost Ratio

8.4 The given salvage values are at the end of 20 years. (partial answer: For Y-X, Delta B/Delta C < 1. The specific value of the ratio will depend on whether you treat salvage as a benefit or negative cost, and whether you subtract annual maintenance from the savings to get a net benefit or include the maintenance as part of cost. The best option will be the same in any case.)

#2. Using B/C ratio (correctly) as the basis for comparison and assuming the alternatives are mutually exclusive, choose the best of Projects A, B, D and E in problem 5.27. There is a 5-year period of need and the projects are repeatable, i.e. technology is stable. Assign reasonable salvage values where needed. Assume the cash flows are stated in actual $, the inflation rate f = 8%/yr, and the market MARR = 15%/yr. (Checks on NPW (= B-C) for Proj A (-$3332) and Proj D ($828), and on PW of costs (C) for Proj E ($10970))

Project Balance

5.26 Don’t use Excel since it’s best to understand the calcs.