ENG 106 Homework #2 (due 25 Jan)

Nominal and Effective Interest, Compounding

Note that many of the book’s problems may state “(some) % interest compounded (monthly, etc.).” What is usually meant, although not stated explicitly, is “(some nominal annual) % interest compounded (monthly, etc.).”

3.2 (approx. answers: about 20% and 22%)

3.4 (You are given r and ia.)

3.42 Part (a) has a bit of a trick: amounts deposited in a bank account after the beginning of a compounding period don’t earn interest until the beginning of the next period. (approx. answer for (b): about $293k)

3.57 (approx.. answer: about $11k)

Inflation

4.11 (approx. answer: about $64k)

4.14 (approx. answers: about $300 and $280)

#7: Market interest rate i=9%/yr, and inflation rate f=3.8%/yr. Begin with an equal-payment series in constant (year-zero) dollars of A’ = $1000 at the end of each of three years beginning at EOY 1. Convert this to an actual-dollar equal-payment series of A over the same three years, i.e., determine the amount A. (approx. answer: about $1080.)