

IEMS 326
Homework 3

Please show all work! See the syllabus for homework policies.

1. Newnan et al., Chapter 5 Problem 26 (p. 175).
 2. Newnan et al., Chapter 5 Problem 32 (p. 176).
 3. Newnan et al., Chapter 5 Problem 67 (p. 180).
 4. Newnan et al., Chapter 5 Problem 68 (p. 181).
 5. Consider the example from class about Intel selling dual-core vs. quad-core CPUs, with DCF analysis in the CPUs tab of the `lecture9.xls` spreadsheet. Suppose that we have to revise our projections. Intel's vice president of manufacturing informs us that if we stop making dual-core CPUs now, we could sell the fab that currently makes dual-core CPUs for \$1 billion. (However, if we don't stop making dual-core CPUs now, there would be no value to selling the fab in the future.) Compare the following alternatives:
 - a) status quo: continue making only dual-core CPUs
 - b) make only quad-core CPUs, discontinuing the dual-core CPUs
 - c) introduce quad-core CPUs and keep making dual-core CPUs
 - d) discontinue dual-core CPUs but also do not introduce quad-core CPUs
- 5.1) With our revised projections, which alternative is best according to the NPV criterion?
- 5.2) OPTIONAL BONUS QUESTION: with our revised projections, which alternative has the highest internal rate of return? (Warning: it is not obvious how to formulate the comparison of alternatives' cashflows so that the IRR is a sensible thing to look at.)