Session 17: Post class test solutions

1. **a. Expensive.** To answer this question, I started by estimating the "intrinsic" value of the operating assets:
   After-tax operating income = (100-40) (1-.4) = 36
   Net Cap Ex = 58 – 40 = 18
   Reinvestment rate = 18/36 = 50%
   Expected growth = .50 (6%) = 3%
   Intrinsic EV = (36-18)(1.03)/(.10-.03) = $265
   EV/EBITDA = 265/100 = 2.65
   It is expensive
2. **c. 1.067**. To get to this number, you start off by estimating the return on capital and reinvestment rate:
   - Return on capital = 80/800 = 10%
   - Reinvestment rate = 2% / 10% = 20%

   To estimate Enterprise value/ Sales
   Expected operating margin = 80/1000 = 8%
   EV/Sales = .08 (1-.20)/ (.08-.02) = 1.067
3. **e. All of the above**. If you have a small sample of comparable firms, they have to be comparable on all dimensions: risk, growth and cash flows. With a small sample, you cannot control for differences in any meaningful way.
4. **c. Fairly valued.** Plugging the ROE for GenSys into the regression
   PBV = 0.72 + 80 (.16) = 2.00

   The stock is trading at 2 times book value. Hence, it is fairly priced.

5. **c. Selena Inc. pays no taxes but comparable companies pay tax rates that average 30%.** The only explanation that is consistent with Selena trading at a higher multiple of EBITDA than the sector is that Selena pays lower taxes. All of the other choices lead in the opposite direction.