Session 20B: Post class test solutions

1. **a. True**. If you use just market capital (equity) in the numerator, companies that fund themselves more with debt and generate the same revenues will look cheaper on a price to sales ratio basis.
2. **a. Net Profit margin**. Since the multiple that you are using uses equity value in the numerator, you should use the net profits (the profits to equity investors) in the margin computation.
3. **c. Lower margin, lower EV/Sales ratio**. The margin will drop if prices drop and the lower margins will translate into a lower multiple of revenues. However, the company can still emerge as a more valuable company, if its sales go up more than proportionately.
4. **b. $1 billion**. If you apply the EV/Sales ratio of the generic company to the brand name company's revenues, you get $1.5 billion as enterprise value. Subtracting this from the total enterprise value of $2.5 billion yields a value of $ 1 billion.
5. **b. $946.8 million**. Start by estimating the expected EV at the end of year 3 and discounting back to today at the cost of capital for 15%:
    - Expected EV = 3* 600 = $1800 million

    Discount back at the cost of capital
    - EV value today = $1800/1.15^3$ = $1183.5 million

    Adjust for survival
    - Value of equity today = 1183.5*.8 = $946.8 million