Session 14: Post Class tests

1. When you use relative valuation, you are trying to price assets based upon what similar assets are being priced at. In comparing across these assets, which of the following do you have to do?
    a. Find similar or comparable assets, with trading prices
    b. Standardize the prices to a common variable available for all assets
    c. Control the standardized prices for differences across the assets
    d. All of the above
    e. None of the above
2. Oneida Inc. is a publicly traded company with a 60% cross holding in Cyclops Inc., also a publicly traded company. You are given the following information from Oneida Inc's consolidated financials and Cyclop's financials:

	Oneida	Cyclops
Market Cap	5000	2000
Debt	1000	400
Cash	800	100
EBITDA	900	500
Minority interest	400	0

   (The market cap number is the share price times number of shares. All of the other numbers come from financial statements).
   What is the EV/EBITDA multiple for Oneida on a consolidated basis?
    a. 5.78
    b. 6.22
    c. 6.67
    d. 8.00
    e. None of the above
3. In the last example, what would the EV/EBITDA multiple for Oneida be, just as a parent company?
    a. 4.11
    b. 4.44
    c. 7.25
    d. 9.25
    e. 10.00
    f. None of the above
4. The distribution for any multiple will tend to be asymmetric. Given that a multiple cannot be less than zero but is unconstrained on the upside, which of the following would you expect to see in the summary statistics?
    a. The average should be higher than the median
    b. The average should be lower than the median
    c. The average will be roughly equal to the median
    d. The average can be higher or lower than the median
5. The PE ratio usually cannot be computed when a company has negative earnings. Assume that you have a sample of 100 firms and that 30 of these firms have

negative earnings. Let's say that you compute a market cap weighted PE ratio for the 70 firms with PE ratios and an aggregate PE ratio by dividing the total market capitalization of all firms in the sector by the total net income of all firms in the sector. Which one will yield the lower value?

    a. The weighted average PE ratio across the money making firms
    b. The aggregate PE ratio across all firms
    c. Either can happen

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1. **d. All of the above**. You have to find traded, similar companies, standardize prices to a common variable and adjust for differences across companies.
2. **c. 6.67.** To get the EV/EBITDA for the consolidated company, I first compute the market value of the 40% of Cyclops that does not belong to Oneida, which yields:
   - Market cap of 40% of Cyclops = 0.40 (2000) = 800
   - Since the debt, cash and EBITDA numbers are already fully consolidated, you can now compute the EV/EBITDA multiple:
     EV/ EBITDA = (5000+800+ 1000-800)/ 900 = 6.67
3. **d. 9.25**. To estimate the EV to EBITDA for just the parent company, I have to clean up each of the numbers for Cyclop's holdings;
   - Parent company equity = 5000 -0.6 (2000) = 3800
   - Parent company debt = 1000-400 = 600
   - Parent company cash = 800 – 100 = 700
   - Parent company EBITDA = 900-500 = 400
   - Parent company EV/EBITDA = (3800+600-700)/400 = 9.25
4. **a. The average should be higher than the median.** The positive outliers will tend to pull the average up, above the median.
5. **a. The weighted average PE ratio across all firms.** The firms that you were unable to compute PE ratios for had negative earnings and positive market capitalizations. If you added their market capitalization to the market capitalization of the companies that you were able to compute the PE ratio for and added the net income (or loss) to the net income of the firms that you were able to compute the PE ratio for, you will end up with a lower aggregate PE ratios since the numerator will become higher and the denominator will become smaller.