Session 18A: Post class test solutions

1. c. **EV/EBITDA can be compared across companies that use different depreciation methods.** Companies that use accelerated depreciation will report lower net income than companies that use straight line depreciation and may look more expensive on a PE ratio basis. None of the other reasons hold up: EV/EBITDA is affected by cost of capital, which can be affected by financial leverage and while EBITDA may be a measure of intermediate cash flow, it is not free (since you still have to pay taxes and cover capital expenditures).

2. **d. The income from cash is not part of EBITDA.** To preserve consistency, you have to net out the cash (and any other assets whose income is not part of EBITDA from the numerator).

3. **e. They have high net capital expenditures.** High depreciation, high earnings and lower taxes, by themselves, should push up your EV/EBITDA multiple. Having high net capital expenditures, holding growth constant, will lead to lower EV to EBITDA.

4. c. $17.87. To get the value, you first need to estimate the expected EBITDA in year 5:
   - Expected revenues in year 5 = 1000 * 1.06^5 = $1,338 million
   - Expected EBITDA in year 5 = 1,338 * .08 = $107.05 million

   Applying the EV/EBITDA multiple (6) for a healthy telecom firm
   - Expected EV = 107.05 * 6 = $642.3 million

   Discounting back at 12% for five years, we get:
   - EV today = $642.3 million / 1.12^5 = $364.5 million
   - Equity value today = $364.5 + 50 – 200 = $214.5 million
   - Equity value per share = $214.5 / 12 = $17.87/share

5. c. 25%. To estimate the growth rate, recognize that the firm is correctly priced right now:

   Current EV/EBITDA multiple = 480/100 = 4.80

   Set equal to the expected value in the regression
   4.80 = 5 + 80*(0.06) - 20*(0.10) - 12(Tax rate)

   Solve for the tax rate, tax rate = 25%