Session 6: Post class test solutions

1. **d. Difference between gross and operating margin**. To the extent that COGS represents variable costs and other operating expenses are fixed, companies which have high gross margins and low operating margins should benefit more from economies of scale.
2. **c. Because book values are more likely to reflect the capital invested in existing assets and projects.** Market values may reflect current values for assets better than book values, but the objective in accounting return is to measure how much you make on existing investments, given how much you invested in them (not how much they are worth today).
3. **d. Total Debt/ EBITDA.** Distress risk comes from the inability to make debt payments and EBITDA is the cash available to make these debt payments. A company that has a lot of debt relative to its EBITDA has more distress risk, even if it has low debt to capital ratios. And total debt is a more comprehensive measure of what is owed than long term debt.
4. **b. Average EBIT over time/ Current year's interest expense.** Since the company's income is volatile, I would use the average EBIT. However, since its debt load has been increasing, I should be looking at the current year's interest expense (since it will be higher than the interest expenses in the past) and is more indicative of what the company owes.
5. Ranking from most to least efficient:
    - Most efficient: High sales to capital and high operating margins
    - Lease efficient: Low sales to capital and low operating margins
    - The other two will fall in the middle

    In fact, the product of sales to capital and operating margin is the return on invested capital, with higher returns on capital going with more efficient investing.

    Pre-tax ROIC = Sales/Invested Capital * EBIT/Sales