In class exercise – Notes #1

1. You have 100 shares in a corporation that has income before taxes of $100 million. The firm first has to pay corporate tax, then it will distribute 50% of its net earnings to its shareholders as a dividend. There are 1 million shares outstanding. Assume the corporate tax rate is 21%, and the personal tax rate on dividend income is 20%. As a shareholder with 100 shares, how much will you receive after all taxes are paid?

2. Assume that the market cap for Apple is $3 trillion, and for Facebook is $1 trillion. Both companies are in the S&P500 index.
    a. Suppose that the price of Apple went down by 1% and the price of Facebook went up by 3%. If the prices of the other stocks in the S&P500 did not change, what will be the change (in %) in the S&P500 index?
    b. If you bought an ETF that follows the S&P500 what will be the change (in %) in this ETF?
    c. Now suppose that the price of Apple went up by 1% and the price of Facebook went down by 3%. If the prices of the other stocks in the S&P500 did not change, what will be the change (in %) in the S&P500 index?
    d. If you bought an ETF that follows the S&P500 what will be the change (in %) in this ETF?