Answers to Practice Questions for Chapter 2

1. $30,000 initial equity, 60% im, 40% mm
   a. you can borrow up to $20,000
   b. You have a total of $50,000 to invest. You can buy 1,000 shares
   c. When your equity falls below $13,333.33 (at this point, your total is $33,333.33).
   d. The critical price per share is $33.33
   e. Your TDR is TDR=40K-30K=$10,000. Your TPR is 10K/30K=33.33%
   In the all-cash account, your TDR is the same, assuming you had initial equity of $50,000. Your TPR is 10K/50K=20%

2. Short sell 1000 FHI @$50/share. Initial equity $100,000
   a. Remember that no matter what happens, the account total is $150,000.
   Therefore, at margin call, 0.4 = \( \frac{150,000 - SP}{SP} \). Then, you can calculate the critical level of SP as $107,142.86. Since you shorted 1,000 shares, the critical price is $107.14. At this point, your account equity is down to $42,857.14 (You find this by subtracting SP from the account total, which is $150,000).
   b. Your TDR is 42,857-100,000=$57,142.86. Your TPR is (-57,142.86)/100,000=-57.14%

3. $50K in initial equity. Short 1000A @$30, buy B @16.
   a. You get $30,000 from the proceeds of the short sale. You have a total of $80,000 with which to invest. You can buy 5,000 shares of B. (80K/16=5,000)
   b. Your total assets consist of 5,000 shares of B, which are now worth $100,000, since B is selling at $20. Your SP is now 32X1,000=$32,000. The difference, $68,000 is your current level of equity.
   c. Your TDR is 68K-50K=$18,000. Your TPR is 18K/50K=36%. If you had an all-cash account, you would need $80,000 in initial equity to buy 5,000 shares of B. When B goes to $20, your account total (and your equity) goes up to $100,000. Your TDR is $20,000. Your TPR is 25%.