1. Portfolio = $1,000,000, 90% in equity earning 12%, 40% in Fixed Income = $125,000 earning 2.5% [ note 90% + 40% > 100%, there is a margin here, assume the cost of margin is 6.5%]. Calculate the FV in 5 years.
2. A bond YTM is 5%, coupon is 9%, term is 10 years semiannual. Calculate the effective duration. Assume the yield rises by 60 bps, provide the duration-based change in bond price and actual calculator-based price. Calculate and explain the error.
3. An investor has an equity of $250,000 in SPY (S & P 500 ETF). He doubles the investment using the broker’s margin assuming a 0.5 initial margin. If the maintenance margin is 0.35, determine:
4. The SPY current price
5. Price at which there will be a margin call (MC)
6. % decline in which there will be a MC
7. Required action if there is a MC
8. If SPY had increased by 14% in one year, calculate the ROI.
9. If you were bearish, and shorted $100,000 of SPY:
10. Provide the margin requirement
11. If the stock declines 5%, provide the ROI.
12. Explain when to use the bid and ask quotes.
13. Go to [www.optionseducation.org](http://www.optionseducation.org), Options quotes, find the (estimated 30 day) positions on QQQ (Nasdaq). Find/ determine:
14. The bid/ ask quotes for the approximate 0.1800 delta position
15. Determine the correct margin requirement for the short put. [Note there are three formulas to choose from. Select the highest.]
16. You wish to “go long” with ES futures contracts with $100,000.
17. How many contracts can you have?
18. At what point will you get a margin call?
19. What must you do if you get a MC?
20. You have a $500,000 account 60% in equity and 40% in fixed income and wish to short options.
21. What is your estimated Non-Margin Buying Power?
22. What might raise or lower the NMBP?
23. Provide multiple interpretations of a Beta (β) of > 2.00.
24. TQQQ (leveraged ETF for Nasdaq).
25. What is the price?
26. How many shares can you buy with $100,000?
27. How many shares can you buy with margin?
28. If not margined and the NASDAQ increases 20%, what will your account be worth?