Exercise 1

1. What is the yield-to-maturity on a \$1,000-face-value discount bond maturing in one year that sells for \$800?
2. You are offered two bonds, a one-year U.S. Treasury bond with a yield-to-maturity of 9% and a one-year U.S. Treasury bill with a yield on a discount basis of 8.9%. Which would you rather own?
3. You have just won 10 million baht in the lottery, which promises to pay you 1 million baht (tax free) every year for the next ten years. Have you really won 10 million baht? Explain your answer.
4. Assume that the current market interest rate is 3 percent. Calculate the returns and provide all relevant factors to compare between the two alternatives below:
    a. A 4-year government bond initially sold to the public on the same date last year (the first coupon paid yesterday). Face value of the bond is 1,000 baht and its coupon rate is 4 percent, while the current price of the bond is at 880 baht.
    b. A 3-year zero-coupon government bond initially sold to the public today. Face value is 1,000 baht and the bond is sold at 840 baht.