

### Question 5

- a. The Lutfus Corp offers a 6% bond with a current market price of \$875.05. The yield to maturity is 7.34%. The face value is \$1,000. Interest is paid semiannually. How many years is it until this bond matures?
  
- b. A corporate bond with a face value of \$1,000 matures in 4 years and has a 8% coupon paid at the end of each year. The current price of the bond is \$932. What is the yield to maturity for this bond?
  
- c. The Chocolate Factory Inc. is expecting its ice cream sales to decline due to the increased interest in healthy eating. Thus, the company has announced that it will be reducing its annual dividend by 5% a year for the next two years. After that, it will maintain a constant dividend of \$1 a share. Two weeks ago, the company paid a dividend of \$1.40 per share. What is the current worth of the stock if you require a 9% rate of return?
  
- d. Active Planet Bhd. is preparing to pay its first dividends. It is going to pay \$1.00, \$2.50, and \$5.00 a share over the next three years, respectively. After that, the company has stated that the annual dividend will be \$1.25 per share indefinitely. What is the current worth of this share if you require a 7% rate of return?
  
- e. Your portfolio consists of \$100,000 invested in a stock which has a beta = 0.8, \$150,000 invested in a stock which has a beta = 1.2, and \$50,000 invested in a stock which has a beta = 1.8. The risk-free rate is 7 percent. Last year this portfolio had a required rate of return of 13 percent. This year nothing has changed except for the fact that the market risk premium has increased by 2 percent (two percentage points). What is the portfolio's current required rate of return?