END OF CHAPTER EXERCISES

Chapter 4 : Financial Arithmetic

Investments : Spot and Derivatives Markets

(Keith Cuthbertson, Dirk Nitzsche)

1. What is an annuity? Give some practical examples.

2. How does the holding period return (yield) on equity differ from that on a coupon paying bond ?

3. Interest on some assets is calculated using 'simple' interest. Wouldn't you earn more if compound interest was used ?

4. What is the present value (PV) of monthly payments of $ 50 for the next 12 months, if the payments are made at the end of the month. The discount rate is 1% per month.

5. Compute how much you would have in a savings account 2 years from now if you invest $ 500 today, given an interest rate of 5.25% compounded :
   (a.) Annually
   (b.) Semiannually
   (c.) Quarterly
   (d.) Continuously

6. The (simple) annual rate quoted "on the street" is 8% and interest is paid quarterly. What is the effective annual rate ?

7. The effective annual yield is R_1 = 12% p.a. What periodic rate R_2 paid quarterly would give the same terminal value at the end of the year ?