Exercises 1 - Time Value of Money

1. To what amount will £1,000 accumulate after n years at 10 percent compounded annually?

2. How many years will it take for £500 to grow to £1,039.50, if invested at 5 percent compounded annually?

3. After examining various personal loan rates available to you, you find that you can borrow funds from a finance company at 12% compounded monthly, or from a bank at 13% compounded annually. Which is the best deal?

4. What is the present value of £1,000 to be received after 8 years if we discounted back to present at 3 percent per annum with continuous compounding?

5. A bond pays a coupon of 10% semi-annually for 5 years. If the principal is £1,000 and the discount rate is fixed at 8% (continuous compounding) what is the present value of the bond? How much will its value change if the discount rate is 8.25%?