11. What is the future value in three years of $1,000 invested in an account with a stated annual interest rate of 8%,

(a). Compounded annually?

(b). Compounded semiannually?

(c.). Compounded monthly?

(d). Compounded continuously?

(e). Why does the future value increase as the compounding period shortens?

12. Compute the future value of $1,000 continuously compounded for

(a). 5 years at a stated interest rate of 12 percent.

(b). 3 years at a stated interest rate of 12 percent.

(c). 10 years at a stated interest rate of 12 percent.

(d). 8 years at a stated interest rate of 12 percent.

13. Investment Corporation of America has an unfunded pension liability of $800 million that must be paid in 20 years. To assess the value of the firms’ stock, financial analysts want to discount this liability back to the present. If the relevant discount rate is 9.5 percent, what is the present value of this liability?

14. John Johnson recently inherited $10,000 and wants to buy a car in five years. John estimates that the car will cost $16,105 at that time. What interest rate must he earn to be able to afford the car?