13. Which will deliver a higher future value after two years, a deposit of \$500 attracting interest at 10% compounded daily, or at 10.5% compounded annually?
14. What initial investment subject to annual compounding at 10% is needed to earn \$500 in interest after two years?
15. How much can you borrow if the interest rate is 15% (a.c.), you can afford to pay \$10,000 at the end of each year, and you want to clear the loan in 10 years?
16. Suppose that you deposit \$1,000 at the end of each year for 40 years, subject to annual compounding at a constant rate of 5%. Find the balance after 40 years.
17. An investor receives \$1,150 in one year in return for an investment of \$1,000 now. Calculate the percentage return per annum with (a) annual, (b) semiannual, (c) monthly, (d) daily, (e) continuous compounding.
18. What will be the difference between the value after one year of \$100 deposited at 10% compounded monthly and compounded continuously? Find all frequencies m such that the difference between the value after one year of \$100 deposited at 10% compounded periodically with frequency m and compounded continuously is less than 1 cent.
19. An interest rate is quoted as 5% per annum with semiannual compounding. What is the equivalent rate with (a) annual, (b) monthly, and (c) continuous compounding?