

14. Which will deliver a higher future value after one year, a deposit of \$1,000 attracting interest at 4% compounded daily, or at 4.1% compounded semiannually?
15. What initial investment subject to annual compounding at 4% is needed to earn \$1,000 in interest after two years?
16. How much can you borrow if the interest rate is 12%, you can afford to pay \$14,000 at the end of each year, and you want to clear the loan in 10 years?
17. Suppose that you deposit \$1,500 at the end of each year for 40 years, subject to annual compounding at a constant rate of 4%. Find the balance after 40 years.
18. An investor receives \$1,100 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.
19. What will be the difference between the value after one year of \$100 deposited at 10% compounded monthly and compounded continuously? For which frequencies of periodic compounding is the difference less than 1 cent?
20. 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?