## Section 2.4 Additional Problems

1. Suppose that you can purchase a Cinnabon franchise. It will generate income of $\$ 30,000$ per year for 10 years. You can recover your principal in a sinking fund earning $2 \%$ per year. If you want your annual return to be $6 \%$, what price would you be willing to pay for the franchise? Assume the income occurs at the end of each year?
2. You are going to purchase an annuity that pays $\$ 1,000$ at the end of each year for 20 years.
a. Assuming an effective annual interest rate of $4 \%$, compute the price of the annuity.
b. If you reinvest each payment of $\$ 1,000$ in an account earning an effective annual rate of interest of $2 \%$, what is the yield rate for your investment over the 20 years?
