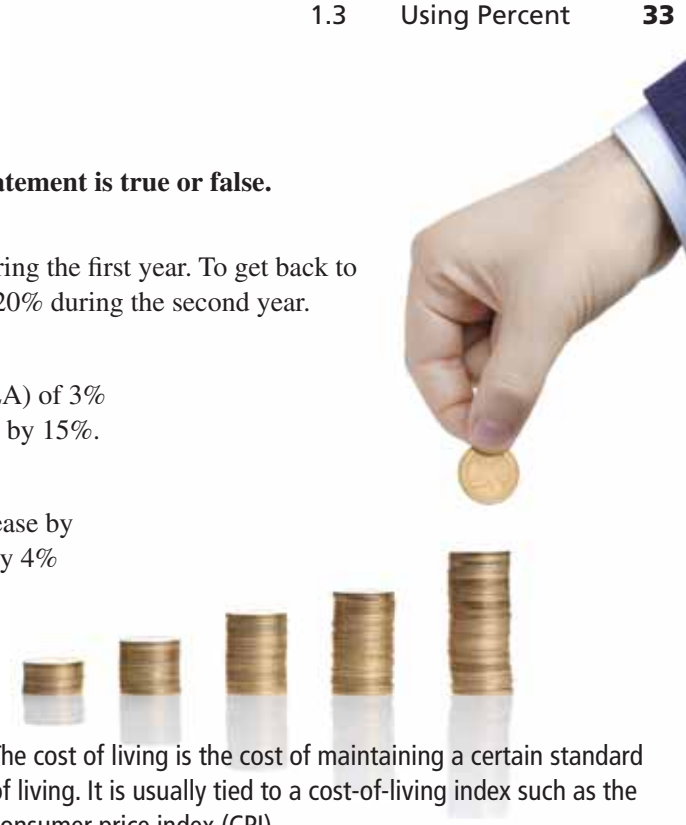# ▶ Extending Concepts

True or False In Exercises 25–28, decide whether the statement is true or false.
Explain your reasoning.

25. You invest $1250 in the stock market and lose 20% during the first year. To get back to
your original investment, your portfolio needs to gain 20% during the second year.

26. At work, you receive a cost-of-living adjustment (COLA) of 3%
each year. Over a 5-year period, your pay will increase by 15%.

27. Your property taxes increase by 5% one year and decrease by
1% the next year. Overall, your property taxes are up by 4%
over 2 years.

28. Everything in a store is on sale for 40% off. You
have a coupon for 10% off the purchase price.
When you go to the counter to pay, you will
receive 50% off the original price.

The cost of living is the cost of maintaining a certain standard
of living. It is usually tied to a cost-of-living index such as the
consumer price index (CPI).

29. **Savings Account** You open a savings account that has a 2.0% simple annual interest rate.
At the end of the first year, you have earned $30 in interest. No other transactions were
posted to the account. What is the balance of the account at the end of the first year?

30. **Political Platform** As part of a political platform, a politician promises to cut spending
by 110%. Is this possible? Explain your reasoning.

DATA **31.** **Test Scores** Four exams are used to determine your final grade in one of
your classes. The bar graph shows your scores on the first three exams.
What percent do you need on the last exam to receive an 85%
in the class?

Test Scores
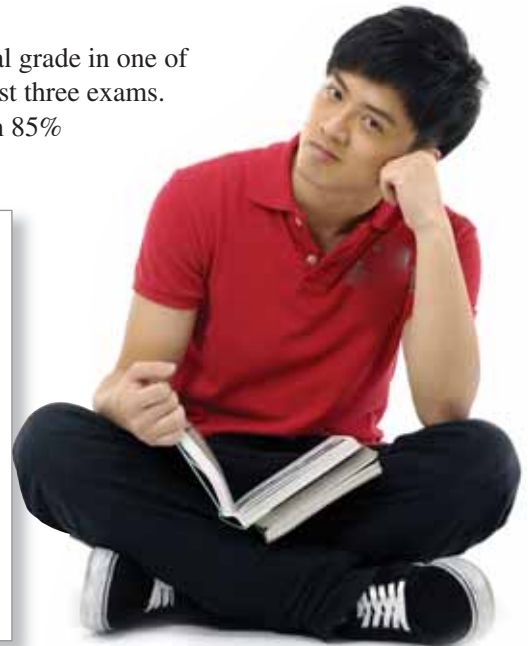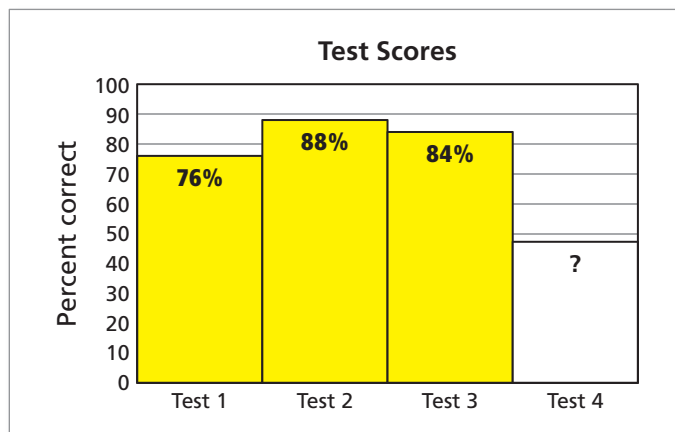
32. **Profit Sharing** Your company currently allocates 5% of the company profits each year to a
profit sharing plan for the employees. The board of directors decides to increase the amount
allocated by 10%. Does this mean the new policy is to allocate 5.5% or 15% to the profit
sharing plan each year? Explain your reasoning.