Pg 412 1-4, 17, 18

1. $10,000 is invested for 6 years at an annual simple interest rate of 16%.
   (a) How much interest will be earned?
   (b) What is the future value of the investment at the end of the 6 years?
2. $800 is invested for 5 years at an annual simple interest rate of 14%.
   (a) How much interest will be earned?
   (b) What is the future value of the investment at the end of the 5 years?
3. $1000 is invested for 3 months at an annual simple interest rate of 12%.
   (a) How much interest will be earned?
   (b) What is the future value of the investment after 3 months?
4. $1800 is invested for 9 months at an annual simple interest rate of 15%.
   (a) How much interest will be earned?
   (b) What is the future value of the investment after 9 months?

17. If $5000 is invested at 8% annual simple interest, how long does it take to be worth $9000?
18. How long does it take for $8500 invested at 11% annual simple interest to be worth $13,000?

Pg 425 2, 3, 18, 21

For each investment situation in Problems 1–4, identify (a) the annual interest rate, (b) the length of the investment in years, (c) the periodic interest rate, and (d) the number of periods of the investment.

2. 12% compounded monthly for 3 years
3. 9% compounded monthly for 5 years

18. If \$8000 is invested at 8.5% compounded continuously, find the future value after $4\frac{1}{2}$ years.

21. Which investment will earn more money, a \$1000 investment for 5 years at 8% compounded annually or a \$1000 investment for 5 years compounded continuously at 7%?