

Name: _____

Date: _____

BLM 7-12

Chapter 7 Test

For questions 1 to 3, answer true (T) or false (F).

1. The equivalent annual interest rate for an investment at 6% per year, compounded quarterly, is 2%.
2. \$2300 invested at 2.8% per year, compounded semi-annually, will be worth \$2640.54 in 5 years.
3. \$1500 invested at 3% per year, compounded annually, for 4 years, will earn more interest than at 4% per year, compounded semi-annually, for 3 years.

For questions 4 to 7, select the best answer.

4. \$5000 will grow to \$7000 most quickly at an annual interest rate of
A 6.5%, compounded annually
B 6%, compounded semi-annually
C 5%, compounded monthly
D 4.5%, compounded weekly
5. How much needs to be invested now at 6% annual interest, compounded quarterly, to have \$125 000 in 15 years?
A \$51 162 B \$305 402.47
C \$52 158.13 D \$99 981.44
6. What value does x represent in the equation: $2000 = x(1.02)^4$?
A compounded interest
B future value
C present value
D quarterly rate of interest
7. A \$3200 investment that pays semi-annual interest will grow to \$3603.72 in 3 years at an annual interest rate of
A 2% B 4%
C 6% D 8%

8. Leah invested \$2200 at 4.5% per year, compounded annually, for 5 years. Alex had \$2200 in a simple interest account for 5 years and earned the same amount of interest. What was the annual interest rate on Alex's account?
9. Use the compound interest formula $A = P(1 + i)^n$ to evaluate each amount.
a) \$650 at 4.4% per year, compounded quarterly, for 7 years
b) \$1725 at 6% per year, compounded semi-annually, for 2 years
10. Calculate the present value of each amount.
a) \$1200 is required in 2 years. The money can be invested at 4% per year, compounded annually.
b) \$3225 is required in 12 years. The money can be invested at 4% per year, compounded monthly.
11. Kathy borrows \$3300 in her first year of college. How much will she owe at the end of 3 years if her loan is at 4% annual interest, compounded weekly?
12. A \$5000 investment pays interest at 4.8% per year, compounded quarterly. Make a table of values and draw a graph to show the investment's growth for 8 years.
13. How long will it take \$2000 to double at 6% per year, compounded annually?
14. What annual interest rate, compounded semi-annually, would make \$1000 grow to \$2000 in 10 years?