Name: _____ Date: _____

Chapter 7 Practice Test

BLM 7–10

For questions 1 to 5, select the best answer.

1. How many interest payments are made in 14 years and 6 months if interest is paid quarterly?
A 14.5
B 4
C 30
D 28

2. Which is the correct expression for the interest paid on an investment of $1000 if interest is paid at 4%, compounded semi-annually, for 3 years?
A $\$1000(1.04)^3$
B $\$1000(1.02)^6$
C $\$1000(1.04)^3 - 1000$
D $\$1000(1.02)^6 - 1000$

3. At a 5% annual interest rate, compounded quarterly, how much interest will be earned on an investment of $500 in 3 years?
A $80.38
B $580.38
C $578.81
D $78.81

4. Which earns more in interest on an investment of an equal amount: an account paying an annual interest rate of 6% compounded monthly, or an account paying an annual interest rate of 6% compounded semi-annually?
A monthly
B semi-annually
C They pay the same amount of interest.
D It is not possible to determine until the amount invested is known.

5. An amount was invested at an annual rate of 5% simple interest for 8 years. At the end of the 8 years, the account had a total of $8400. The amount of interest paid is
A $300
B $1050
C $2400
D $8400

6. Five years ago, Pina invested $8000 at 4% simple interest. Her sister, Patricia, invested the same amount 5 years ago at 3.75% annual interest, compounded yearly. Create a table of values to compare the amount that each investment was worth at the end of each year.

7. Natasha owes $10 962.44 at the end of 4 years on an amount borrowed at 7% per year, compounded semi-annually. How much did she borrow?

8. a) How much must be deposited every 3 months in an annuity that offers interest at 8%, compounded quarterly, for the amount of the annuity to be $15 000 at the end of 6 years?
b) How much interest will have been paid that time?

9. Jamal invested some money 6 years ago at an annual interest rate of 5.2%, compounded semi-annually. He takes this money and invests it in a second plan that offers 6%, compounded annually, for an additional 6 years. At the end of this investment period, he will have a total of $11 581.23. What was Jamal's initial investment?

10. In 7 years, money invested at 8% per year, compounded every 3 months, will grow to $11 142.55. How much was invested?

11. Which is the better plan in which to invest? Justify your answer.
Plan A: 8% annual interest rate, compounded annually, for 25 years
Plan B: 7.2% annual interest rate, compounded monthly, for 25 years

12. A school is given $40 000 to set up a bursary program for the top five graduating students. The school plans to offer these bursaries over the next 20 years, with the first set of bursaries to be given at the end of the current school year. If the amount is invested in an account that pays 5.8% annually, compounded annually, how much will each student receive?

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