Name: _____ Date: _____

BLM 8–11

Chapter 8 Review

8.1 Simple and Compound Interest, pages 422-429

1. Graph the rate of growth of a $400 investment at 4% simple interest and at 4% per year, compounded annually.

2. Alana invested $6000 at 5% simple interest for 4 years. If Alana had invested the money at 5% per year, compounded annually, how much more would her investment have been worth at the end of the 4 years?

3. The population of a small community of 14 000 people is expected to grow by 2.8% annually for the next 8 years.
a) Make a table of values and sketch a graph of the population growth.
b) How would the graph change if the population is expected to grow at a rate of 1.5% instead of 2.8%?

8.2 Compound Interest, pages 430-435

4. Determine the value of each investment.
a) $875 at 4% per year, compounded quarterly, for 5 years
b) $1150 at 6% per year, compounded semi-annually, for 8 years
c) $2800 at 12% per year, compounded monthly, for 6 years

5. Brett has $10 000 to invest. He invests $3000 at 4% per year, compounded semi-annually. He deposits the remaining amount in a fund that pays 6% per year, compounded quarterly. What will be the total value of these investments if he leaves the investments for 10 years?

8.3 Present Value, pages 436-441

6. Benaz wants to make an investment today so that, after 8 years at 6% per year, compounded quarterly, she will have $5500. How much does she need to invest today to reach her goal?

7. You borrowed money from a creditor. In 3 years, you will need to pay $1550 for the total amount of the loan. The creditor will let you pay off the loan today at 3% per year, compounded semi-annually. How much will the creditor ask you to pay today?

8.4 The TVM Solver, pages 442-445

8. How long will it take an investment of $6000 to double at 8% per year, compounded quarterly?

9. What annual interest rate, compounded semi-annually, would be needed to increase a $2500 investment to $3350 in 4 years?

10. How much would you need to invest on your 16th birthday at 3% per year, compounded quarterly, to have $750 000 by your 60th birthday?

8.5 Effects of Changing the Conditions on Investments and Loans, pages 448-453

11. Rita wants to have $5000 in 5 years. How much would she need to invest at each rate to reach her goal?
a) 4.5% per year, compounded semi-annually
b) 4% per year, compounded quarterly

12. You have $2800 to invest for 4 years. Which plan will earn you the greatest amount of interest?
Plan A: 6.15% simple interest
Plan B: 5.05% per year, compounded semi-annually
Plan C: 3.4% per year, compounded quarterly

13. How much would you need to invest today to have $4000 after 5 years at each rate?
a) 5% per year, compounded monthly
b) 6% per year, compounded semi-annually