Name: _____ Date: _____

Chapter 9 Review

9.1 Savings Alternatives, pages 462–467

1. Calculate the future value of each amount deposited into a daily interest savings plan.
a) $5000 at 5.9% per year for 2 years
b) $40 000 at 6.4% per year for 6 days
c) $1885 at 12.4% per year for 100 days
d) $5 000 000 at 8.8% per year for 2 days

2. Refer to question 1. How much interest was paid on each deposit?

3. Each month, Lance pays $6.50 for the first 10 transactions in his bank account, plus 95¢ for each additional transaction. Last month, Lance made 17 transactions. How much was he charged in service fees?

4. Mei Ling's current salary is $65 000 per year. She says that if she won $1 000 000 in the lottery, she would quit her job and live off the interest on her winnings. She would invest the winnings in an account that pays 6.5% per year, compounded daily. Would Mei Ling earn enough interest each year to replace her current income? Explain.

9.2 Investment Alternatives, pages 468–475

5. Aziza invests her $2455 income tax refund in a mutual fund with an expected annual rate of return of 12.3% each year for the next 5 years. There is a management fee of 2.85% and interest compounds annually. What will the value of Aziza's investment be after 5 years?

6. For the next 40 years, Gala plans to invest $4000 per year in a plan that pays 5.35% per year, compounded annually. What will Gala's investment be worth at the end of the 40-year period?

7. Sanjay has $5000 to invest. Which would be the better investment option in each pair? Justify your answer.

	Option 1	Option 2
a)	8% per year, compounded monthly for 5 years	8% per year, compounded semi-annually for 5 years
b)	16% per year, compounded annually for 5 years	16% per year, compounded annually for 10 years
c)	8% per year, compounded semi-annually for 10 years	16% per year, compounded semi-annually for 5 years

9.3 Manage Credit Cards, pages 476–481

8. What advice would you give someone who uses a credit card regularly?

9. Michael's credit card statement shows a balance owing of $2265. Interest is charged at 24.4% per year, compounded daily after a grace period of 7 days. The minimum payment is the greater of $35 or 4% of the balance.
a) The date on the bill is January 24th. By what day should Michael make a payment to avoid paying interest?
b) What is the minimum payment that Michael must make?

10. Refer to question 9. Suppose Michael chooses to double the minimum payment and pay it the day before interest is charged. What amount will be subject to interest from now to the next statement date?

Name: _____ Date: _____

9.4 Obtain a Vehicle, pages 482–488

11. Ian purchased a used car from his friend's father for $2500. How much tax did he pay for this purchase?

12. You are considering at a 4-year lease on a vehicle. The down payment is $2500 and the monthly payments are $375.
- **a)** What is the total amount you will pay over the 4-year period?
- **b)** At the end of the lease, you can buy the vehicle for $8000. The original price of the vehicle was $24 500 after taxes. Is the buyout price fair? Explain.

13. Use a TVM Solver to determine the monthly payment on a 4-year loan of $24 500 at 9.2% per year, compounded monthly.

9.5 Operate a Vehicle, pages 489–496

14. **a)** Calculate the cost to fill the gas tank of each vehicle. The price of gasoline is 105.9¢/L.
- **b)** How far can each vehicle travel on a full tank of gas?
  - **i)** a compact car with a 40 L tank, fuel efficiency of 8.5 L/100 km
  - **ii)** an SUV with a 82 L tank, fuel efficiency of 14.5 L/100 km
  - **iii)** a motorcycle with a 18 L tank, fuel efficiency of 2.3 L/100 km

15. Tina purchased a new car for $33 450. One year later, it was valued at $26 425.50. The following year, the vehicle depreciated by 18%. At the end of the third year, the vehicle was valued at $18 526.92.
- **a)** What was the depreciation rate the first year?
- **b)** What was the value of the vehicle at the end of the second year?
- **c)** What was the depreciation rate the third year?