Name: _____ Date: _____

Chapter 9 Test

For questions 1 to 6, choose the correct answer.

1. Ron invested $500 for 6 years at 6.5% compounded quarterly. How many compounding periods are there over the term of the investment?
A 6 **B** 24
C 4 **D** 18

2. A car travels 72 km on 9.92 L of fuel. Which rate represents its fuel efficiency?
A 10 L/100 km **B** 13.7 L/100 km
C 7.3 L/100 km **D** 72 L/100 km

3. Which is an example of a variable cost for a vehicle?
A insurance premium
B loan payment
C repairs and maintenance
D license fee

4. $650 is deposited in an account that pays 4.2% per year, compounded monthly, for 4 years. Which is the future value?
A $768.68 **B** $766.27
C $659.15 **D** $4683.43

5. A credit card statement shows a grace period of 8 days. It was issued on May 9th. What is the latest date the payment can be made so no interest is charged?
A May 9 **B** June 9
C June 17 **D** May 17

6. Jeanne pays $8.95 per month for up to 15 transactions on her account, plus $1.05 for each additional transaction. How much will Jeanne pay in transaction fees in a month where she makes 27 transactions?
A $8.95 **B** $15.75
C $21.55 **D** $24.70

For questions 7 to 9, answer true (T) or false (F).

7. The daily interest rate on a credit card that charges 12.7% annually is 1.6417%.

8. A fuel efficiency of 12.7 L/100 km is the same as a fuel efficiency of 8 km/L.

9. An investment of $500 at 6% per year, compounded annually for 3 years will earn more than an investment of $500 at 3% per year, compounded semi-annually for 3 years.

10. At a local dealership, two financing plans are being offered on 15 vehicles priced at $26 500 before taxes.

Plan A: $5000 down and $500 per month for 48 months

Plan B: 1.2% annual financing, compounded monthly, over 48 months with only $1500 down.

a) Use a TVM Solver to determine the monthly payments for Plan B.
b) Determine the total cost of Plan B.
c) What is the total cost of Plan A?
d) Which is the better plan? Why?

11. On her 15th birthday, Enya started depositing $90 per month into an account that pays 5.4% per year, compounded monthly.
a) Use a TVM Solver. Determine the amount Sharon will have in the account on her 60th birthday.
b) Calculate the total amount of interest Enya will earn.

Name: _____ Date: _____

12. Dave leased a sports car for 3 years. He made a down payment of $3000 and pays $1288.42 each month.
- **a)** How much will Dave spend over the term of the lease?
- **b)** Determine the average cost per month over the term of the lease.

13. The gas tank of a car has a capacity of 75 L. The fuel efficiency rating of the car is 10.7 L/100 km.
- **a)** What distance can the car travel on one tank of gas?
- **b)** How much gas would be used on a 375-km trip?
- **c)** If gas costs $1.04/L, determine the cost of fuel for this trip.

14. Marta divided $63 000 evenly among three mutual funds, each with a management fee of 2.5%. In the first year, the first fund had a rate of return of 7.3%, the second fund had a rate of return of 2.8%, and the third fund had a rate of return of 1.9%. Interest is compounded annually.
- **a)** Determine the total value of the three investments at the end of the first year.
- **b)** How much interest did Marta earn in the first year?
- **c)** Calculate the overall rate of return as a percent of her initial investment.

15. Fatima's January credit card statement shows a balance of $1586. Payment is due on January 12. The minimum payment is the greater of $25 or 3.5% of the balance. Fatima made the minimum payment on January 15. She did not make any purchases in January or February and paid the balance in full on February 4 (the date of her February statement). The annual interest rate is 18.6%.
- **a)** What was the amount of the minimum payment Fatima made on January 15?
- **b)** How much interest was she charged up to January 15?
- **c)** What amount did Fatima pay in February to pay off the balance?