

**PreCalc 11 Chapter 7 Assignment – hand in for completion marks**

Name: \_\_\_\_\_

**Complete the following questions showing all work and steps where applicable.**

1. A principal of \$700 was invested at an annual interest rate of 4%. It earned \$46.67 simple interest. For how long was the money invested?

2. A principal of \$1200 is invested at an annual simple interest rate of 5.3%. What is the amount after 5 months?

3. Travis needs \$25 000 to buy a car in 5 years. He is offered an investment that pays 6.3% interest compounded monthly. What is the principal that Travis should invest today?

4. Suppose you are 10 years old, and your grandmother invests \$5000 into a stock that gives an average rate of return of 5.1%, compounded annually. Suppose this investment continues until you retire at age 65. Calculate the amount of the investment when you are 65 years old.

5. A principal of \$100 is deposited in a savings account each month at an interest rate of 4.5%, compounded monthly. What is the amount of this annuity after 50 years?

6. Alexa borrows \$40 000 to buy a car. She repays the loan over 5 years. The dealership offers an interest rate of 0.99%, compounded monthly. What is Alexa's monthly repayment on the loan?

7. Riley needs to buy hockey equipment. The store offers an interest rate of 1.99%, compounded monthly for 2 years. Riley's monthly repayment is \$100. What is the present value of the equipment?

8. A GIC earns a simple interest rate of 4.25% annually. Determine how much you would have to invest to have \$1500 after 3 years.

9. You borrow \$50 from your cousin and promise to pay them back \$75 in 12 days. What is the simple interest rate on this loan?

10. Christiano deposited his money in a high-interest savings account. If the account earns 2.8% compounded monthly, how much would he have after 5 years if he deposited \$990?

11. Saanvi will need to start putting money away every month into RESPs so she will have enough saved to pay for her daughter's post-secondary tuition. Her daughter is currently 2 years old, and she wants to be ready for when her daughter is 18 years old. Financial advisors say you should have \$100,000 saved for a bachelor's degree. How much money should Saanvi start depositing every 3 months (4 times per year) into a RESP that averages 2.8% interest compounded quarterly?