

Exam Review: Financial Mathematics

- 1. Julian puts \$4500 into a savings account that earns 6% interest compounded monthly. How much will this investment be worth in 5 years?**
- 2. Maureen wants to have \$10000 in the bank in 6 years when she goes to college. How much money must she invest today at 5% interest compounded quarterly to meet her goal?**
- 3. Janine is putting \$50 every month into a retirement savings account that earns a modest 4% interest compounded monthly. How much will the retirement fund be worth in 25 years?**
- 4. Madison wants to have \$500000 when she retires. What must her monthly payments be at 3% interest compounded monthly to reach this goal in 25 years?**
- 5. The Jones family wants to purchase a home for \$325000. They currently have a \$100000 downpayment. What will the monthly payments be for 25 years if the current annual interest rate is 3.5%? Recall: Mortgages are always compounded semi-annually.**
- 6. Anton hopes to be able to withdraw \$1500 a month when he retires for 25 years. How big of a savings account must he have at retirement if the interest rate is 6% compounded monthly?**
- 7. John invests \$1000 this year and collects \$1500 when it matures in five years. Describe two reasons why the investment might not actually be worth \$1500 when he collects?**