

4. [9 points] Ramon starts depositing \$10,000 each year at his 25th birthday into a retirement account and continues until his 45th birthday. After this point, he does not touch the account until he is 65. The retirement account accrues interest at a rate of 3% compounded annually.
- a. [3 points] Let R_n be the amount of money *in thousands* of dollars in Ramon's retirement account after n years from his initial deposit. Find an expression for R_0 , R_1 and R_2 .
- b. [3 points] Find a closed form expression (an expression that does not involve a long summation) for how much money Ramon has in his retirement account at his 45th birthday.
- c. [3 points] Find a closed form expression for how much money Ramon has in his retirement account when he is 65 years old. Compute its value.