**Applications to Regular Savings - Assignment**

In this assignment you will investigate different investment options. Your task is to select the best option.

Question 1: Katrina is saving for a trip to Australia after graduation. She needs $4500 in 3.5 years. Katrina has 2 choices for saving money.

* A regular deposit at the end of each month into an account that pays 5.4% compounded monthly
* A regular deposit at the end of each 6-month period into an account that pays 5.7% compounded semi-annually.
1. What would Katrina’s regular monthly deposit be?
2. What would Katrina’s regular semi-annual deposit be?

c) Katrina can afford to make either deposit. Which is the better choice? Justify your answer.

Question 2: Celine is saving for a down payment on a car. She needs $3500 in 2½ years. Celine has 2 choices for saving money.

* A regular deposit at the end of each month into an account that pays 7.2% compounded monthly
* A regular deposit at the end of each 6-month period into an account that pays 7.5% compounded semi-annually.
1. What would be Celine’s regular monthly deposit?
2. What would be Celine’s regular semi-annual deposit?
3. Celine can afford to make either deposit. Which is the better choice? Justify your answer.

Question 3: Marcel wants to save $10 000 in 7 years. He has 3 options:

* Option 1 pays 6% compounded monthly with monthly deposits.
* Option 2 pays 6.2% compounded quarterly with quarterly deposits.
* Option 3 pays 6.35% compounded annually with annual deposits.

Determine the total cost of each option. Which option should Marcel choose?

\*\*\* Question 4: Melanie is 18. She is considering whether to start a savings plan now or to wait a few years. Melanie can save $20 per month if she starts now. She can save $40 per month if she starts 5 years from now. Her money can be invested at 6% compounded monthly up until she turns 28. Should Melanie start to save now or wait 5 years? Explain your decision.

Question 5: When you double the time of an annuity, do you double the amount at maturity? Write a short explanation. Include examples to justify your answer.

Question 6: Each example above is based on a fixed interest rate during the life of the annuity (e.g. 5% for 10 years). Does this always happen, or is it possible for the interest rate to fluctuate during the life of the annuity? Research online or elsewhere to provide examples to support your answer.