

This quiz is worth 25 points. You should clearly show all of your work and justify your answers where appropriate.

1. 25 points Lexi's grandmother is about to retire. She has been saving for retirement for the past 30 years. For the first 20 years, she invested \$300 at the end of each month into a retirement savings account that paid 4.8% annual interest compounded monthly. For the past 10 years, she has invested \$600 into the same account at the end of each month. She plans to withdraw an equal amount of money at the end of each month from this account over the next 25 years, at the same interest rate.

(a) How much will her retirement account be worth when she retires?

(b) How much will she be able to withdraw from this account each month?

(c) How much interest will she have earned on the account over the entire 55 year period?