Exercise 1. [8 points] Ahmed has money to invest. He has two options open to him. **Option 1:** Invest the money in a certificate paying interest at the nominal rate of 5% compounded quarterly. **Option 2:** Invest the money in a savings account earning interest at the annual rate of 4.5% compounded continuously. Under which option will he make more money?

Exercise 2. [12 points] Suppose 10,000 SR is placed in a savings account at the end of each month for 3 years. Assume the account pays 6% compounded monthly.

From Appendix A: $\frac{a_{36}}{0.005} = 32.035371 \quad \frac{a_{37}}{0.005} = 32.871016 \quad \frac{a_{37}}{0.005} = 33.702504$

$\frac{s_{35}}{0.005} = 38.145378 \quad \frac{s_{36}}{0.005} = 39.336105 \quad \frac{s_{37}}{0.005} = 40.532785$

(a) [7 point] How much is in the account after 3 years? (2 decimal places)

(b) [5 points] If no further deposits are made, how much is in the account after 6 years (from now). (2 decimal places)