For each problem, show your work, including the formulas or arithmetic procedures which you used to get your answer. Financial calculations should be rounded to the nearest cent, and give at least one digit past the decimal point on all other calculations.

1. **(5 points)** Your savings account earns 2% annual interest compounded monthly. How much would you need to deposit now in order to have \$5000 in three and a half years?

2. **(5 points)** Municipal bonds are being issued at a cost of \$70, reaching a mature value of \$120 in 30 years. What is the annual percentage yield on these bonds?

3. **(5 points)** Victoria is planning to put \$2000 into a certificate of deposit that earns a 3% annual interest rate compounding monthly. How long (with appropriate units) should she choose as the lifetime of this CD, if she wants it to have a value of \$3500 at the end?