NAME ____________________________________________ group# __________________________

You must turn this take home test in by the final exam time.

For each question you must provide a solution that has the following form:

\[ F = \frac{(1 + 0.06)^7 - 1}{0.06} \]

\[ $4,196.92 \]

You must show the graph and the equations.

1. You are financing a home. The loan amount is for $100,000 and the interest is 6% compounded monthly and fixed for 30 years. You have the option of paying 1% more now in financing cost in exchange you will get \( \frac{1}{8} \) less in your 30 fixed interest. That is you pay 1 “point” now (1% of amount borrowed) to get an interest of \( \frac{7}{8} \)% instead of 6%. If you plan on selling the house in 5 years should you take this option?

2. You are buying a car for $20,000 and the dealer offers you to receive 0% instead of 6% in the 5 year loan or cask back. How much cash back will he have to give you so that it is equivalent to the 0% deal? Assume that if you get the cash back you will invest it at 8%?
3. Compute X. Use an interest of 10%.