1. (10 pts) The demand function for an electronics company's car stereos is $D(q) = 2 - q$ and the supply function is $S(q) = q^2$, where q is measured in thousands.
a. At what price is the market for the stereos in equilibrium?
b. What is the maximum total surplus?

2. (10 pts) A retiree is paid \$1500 per month by an annuity. If the income is invested in an account that earns 5% interest compounded continuously.
a. What is the future value of the income after ten years?
b. What is the present value of the income over a ten-year period?