1) You go to a bank to acquire a mortgage of $\$ 375,000$ with a $4.99 \%$ interest rate that runs for 30 years.
a) What will the monthly payments be to the bank?
b) How much in interest will you pay?
a) If you deposit \$4500 at 5.99 \% interest compounded continuously, how much money will be in the account after $\mathbf{3}$ years and 5 months?

3 ) If you deposit an additional \$1,000 in the same account in \# 6), how much MORE money will be in the account after 3 years and 5 months?
4) How long, to the nearest tenth of a year, will it take for the original deposit to double?
(5) How much interest will you earn in 8 years if you invest $\$ 7500$ at $41 / 4 \%$ compounded semiannually?
(6) How much more interest will you earn if the same investment is put in an account at $4 \frac{1}{4} \%$ interest compounded continuously for 8 years?

