1. If money is losing value at the rate of 5% annually because of inflation, how long will it take a dollar, now assured to be with 100 cents, to be worth 80 cents? Assume inflation is continuously compounded.

2. Suppose an investment of $5,000 earns 8% compounded quarterly for a period of one year. When computing your income taxes, you find that the applicable federal rate is 28% and the applicable state rate is 7% How much of the return on your investment do you keep?