U.S. Government
Compounding Interest and Credit

If at age 20, you started saving $1.50 per day, at the end of a year, you will have saved $537.50. If you never added any more to this, but invested it with an 8% return, how much do you think you would have at age 65?

a. $1,971
b. $2,508.50
c. $17,476
d. $97,451

Compound Interest

Compound interest is interest added to the principal so that the added interest also earns interest from then on. This addition of interest to the principal is called compounding, and it's the reason gains are so much greater than intuition would suggest.

Real v. Nominal Returns

Nominal returns are the amounts, in actual dollars that you make on an investment. To calculate *real* returns, you must subtract the rate of inflation from nominal returns. (If the rate of inflation in the 45 years was 6%, your return would actually be 2% in *real* dollars.

The Doubling Rule of 72

If you divide 72 by the rate of return (as a whole number instead of a percentage) this is the number of years it takes to double your money. So if the rate of return is 8%, it takes nine years to double your money. A 1% difference can make a BIG difference. At 2% $100,000 becomes $200,000 in 36 years, whereas at 3% it become $200,000 in 24 years and almost $300,000 in 36 years.

Market Volatility

If you have $100,000 dollars in an investment that goes up by 50% one year and down by 50% the next, how much will you be left with? (This is the danger of market volatility and the advantage of slow, steady investments.)