

Investments and Compounding

Note: for these problem, all interest rates are annual percentage rates, or APR, and no withdrawals are made from the accounts.

1. An account earning 5.5% interest is opened with \$10,000. How much money will be in the account after 6 years?

2. Smith invests \$5000 in CD's earning 6.5% interest. Jones invests \$4000 in stocks earning 7.5% interest. After 5 years, who has more money? How much more?

3. A bank account is started with \$1000, with an interest rate of 7%.
 - a. Compute the amount of money in the account after the 1, 2, 3, 4, and 5, years.

 - b. Does the amount of increase go down, go up or stay the same?
 - c. How much interest was earned in the fourth year?
 - d. How much interest will be earned in the ninth year?

4. The population of a town increases by 3% annually. If it started at 2800 in 1997, what will the population be in 2005?

5. Boyd N. Hand starts an account with \$1000 at 4% interest. Mahatma Coat decides to invest \$800. At what interest rate must he invest it so that he will have more money than Boyd after 5 years? 10 years? (Remember, "guess and check" is a valid problem-solving strategy.)