Key to 4:00 Quiz: 2/1/12

**Quiz:** You have just deposited $100,000 into an account with an APR of 6% per year with quarterly compounding. Beginning four months from today, you plan to make the first of a series of semiannual withdrawals that will continue through three years and ten months from today. You plan for your first withdrawal to equal $13,500. At what rate can you increase the size of your semiannual withdrawals?

Note: You don’t have to solve anything, just set up the appropriate equations and fill in the correct numbers you would need to answer the question.

\[ r \left( \frac{1}{4} \right) = \frac{.06}{4} \]

\[ r \left( \frac{1}{2} \right) = \left(1 + r \left( \frac{1}{4} \right) \right)^2 - 1 \]

\[ PV_{-2mo} = \frac{100,000}{\left(1 + r \left( \frac{1}{4} \right) \right)^{2 \times 8}} \]

\[ PV_{-6mo} = \left( \frac{13,500}{r \left( \frac{1}{2} \right)} - g \right) \left( 1 - \left( \frac{1 + g}{1 + r \left( \frac{1}{2} \right)} \right)^6 \right) \]

=> Solve for g

**Note:** Bonus WSJ Questions on back of page

**WSJ1:** The Federal Trade Commission intensified its crackdown on the booming debt-collection industry, announcing a $2.5 million settlement with a company for allegedly
a. charging interest rates that exceeded 100%
b. harassing people while they were at work
c. hiring agents who physically attacked some individuals who fell behind on agreed payments
d. knocking on people’s doors at 3 A.M. to harass them about overdue debts
E. coercing borrowers into paying debts they no longer legally owed

**WSJ2:** The Wall Street Journal reports that federal prosecutors are preparing to file criminal charges against former Wall Street traders at Credit Suisse Group alleging in order to boost their bonuses they
a. traded among themselves at prearranged prices to inflate their trading volumes
b. misstated the number of trades they had undertaken
c. traded on material, non-public information
d. "loaned" client balances to each other on the dates that bonuses were determined
E. misstated the value of mortgage bonds