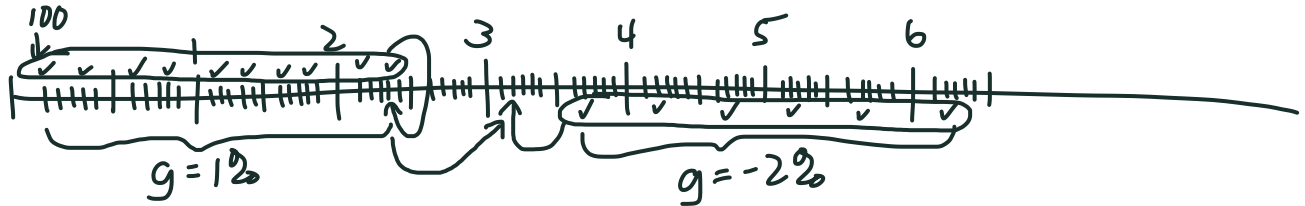


Quiz A for 9:45 Class: 7/17/14

Name Key

Note: If solving for anything other than lefthand side of eq., state which variable solving for.

Assume that one month from today you make the first of a series of quarterly deposits into an account with an APR of 4% where compounding occurs quarterly. Your first deposit will equal \$100 and subsequent deposits will grow by 1% each through your final deposit two years and four months from today. You will make your first semiannual withdrawal from this account three years and eight months from today. These withdrawals will fall by 2% each through your final withdrawal six years and two months from today. Set up the calculations needed to determine how large you can make your first withdrawal from the account.



(15)

$$r\left(\frac{1}{4}\right) = \frac{.04}{4}$$

(12)

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

(18)

$$FV_{2y, 4mo} = \left(\frac{100}{r\left(\frac{1}{4}\right) - .01}\right) \left(\left(1 + r\left(\frac{1}{4}\right)\right)^{10} - (1.01)^{10} \right) = A$$

(12)

$$FV_{3y, 2mo} = A \left(1 + r\left(\frac{1}{4}\right)\right)^{33} = B$$

(18)

$$PV_{3y, 2mo} = \left(\frac{C}{r\left(\frac{1}{2}\right) + .02}\right) \left(1 - \left(\frac{1 - .02}{1 + r\left(\frac{1}{2}\right)}\right)^6\right) = B$$

set equal & solve for C