UNIVERSITY OF TEXAS AT AUSTIN

Quiz #7
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Please, provide your **complete solutions** to the following problems.

Problem 7.1. (10 points) *Note: A similar problem was done in class.*
An 8%-bond with semiannual coupons is sold at a price of 89.21, while a 9%-bond with semiannual coupons is sold at a price of 97.26.

Both bonds have the face amount equal to 100, are redeemable in N years and have the same yield rate j convertible semiannually.

    (i) (5 points) Find j.
    (ii) (5 points) Find N.

Problem 7.2. (5 points) *Source: SoA, May 1991, Problem #15.*
An investor bought a $15-$year bond with par value of 100,000 and 8% semiannual coupons. The bond is callable at par on any coupon date beginning with the 24th coupon. Find the highest price paid that will yield the rate of no less that $i^{(2)} = 10\%$.