55. ***U.S. Treasury Bills*** The U.S. government borrows money by selling Treasury bills. Treasury bills are discounted notes issued by the U.S. government. On May 5, 2007, Kris Greenhalgh purchased a 182-day, \$1000 U.S. Treasury bill at a 4.34% discount. On the date of maturity, Kris will receive \$1000.

a) What is the date of maturity of the Treasury bill?

May 5 Nov 3

125 + 182 = 307

b) How much did Kris actually pay for the Treasury bill?

$I = 1000(.0434)\left(\frac{182}{360}\right)$

$I = 21.94$

$1000 - 21.94 = 978.06$

c) How much interest did the U.S. goverment pay Kris on the date of maturity?

\$21.94

Do #56

#30 ***Credit Union Loan*** Enrico Montoyo wants to borrow \$350 for 6 months from his credit union, using his savings account as security. The credit union's policy is that the maximum amount a person can borrow is 80% of the amount in the person's savings account. The interest rate is 2 percentage points higher than the interest rate being paid on the savings account. The current rate on the savings account is $3\frac{1}{4}\%$.

.25

a) How much money must Enrico have in his account to borrow \$350?

$.80x = 350$

$\frac{350}{.80} = \$437.50$

b) What is the rate of interest ~~the~~ credit union will charge for the loan?

$3.25 + 2 = 5.25\%$

c) Find the amount Enrico must repay in 6 months.

$I = 350(.0525)(\frac{1}{2}) = 9.19$

$+350$

359.19