Economics 304 **Fall 2013**
Daily Problem #11 **October 2**

Consider the situation of a consumer in the Reedian economy, where the sole consumption good is veritons and the currency is the woodstock. In 2013, the price of a veriton is 100 woodstocks. In 2014, the price is expected with confidence to be 105 woodstocks per veriton. The nominal one-year interest rate in Reedia in 2013 is 8%. The capital market is perfect so that all Reedians can borrow or lend freely at 8%.

1. Suppose that Rupert Reedie forgoes the consumption of one veriton in 2013 and receives interest on the money he saves. How many additional veritons can he buy in 2014 as a result of saving one veriton in 2013? (Be precise in your calculations.)
2. What is the real interest rate in 2013?
3. More generally, suppose that the inflation rate is expected to be π and the nominal interest rate is i. In other words, if the price is 100 in 2013, it will be $(1+\pi)\times 100$ in 2014 and each woodstock saved in 2013 returns $(1+i)$ woodstocks in 2014. What is the real interest rate r in terms of i and π?
4. How does this compare to the familiar formula $r = i - \pi$?