REAL 410 **PROBLEM SET 1**

You are evaluating two loans for your property. You are looking at purchasing a $400,000 property with a 20% downpayment. You can finance this property with either a 30 year mortgage at a rate of 4%, or a 15 year mortgage at a rate of 3.25%. You believe that you have investment opportunities in the stock market that will average a return of 9%.

a) What is the payment on the 30 year mortgage?
b) What is the payment on the 15 year mortgage?
c) Suppose you take out the 30 year mortgage, but make the 15 year payment. First, why would you potentially do this? Second, what will the remaining balance on the 30 year mortgage be 15 years from now?
d) If you invest the difference between the 30 year mortgage payment and the 15 year mortgage payment in the stock market at the rate indicted, how much will your investment be worth in 15 years? Is this enough to pay off the mortgage, and does this change our opinion of which option is preferable? Discuss.
e) You don't have to do the calculations for this, but would your analysis change if you had $20,000 in credit card debt that was accruing interest at 18%? If so, how?