## **PROBLEM SET #5**

Suppose you are purchasing a home for \$400,000. You are faced with two options to finance the purchase. First, you can take a 100% LTV constant payment fixed-rate mortgage at 4.5% over 30 years with monthly payments. This loan charges a 1% origination fee and a one-time upfront mortgage insurance premium of 1.5%, but no discount points. Second, you can take an 80% LTV constant payment fixed-rate mortgage for 30 years with monthly payments at 2.5%. This loan charges a 1% origination fee and 2 discount points. Under this second scenario, you will finance the remaining 20% with a second constant payment fixed-rate mortgage at 8% over 10 years with monthly payments. This loan also charges a 1% origination fee but no points. Which financing option is more attractive to the borrower, assuming the loan will be held 5 years? Life time of the loan or more?