Problem Set 4
HONORS 259L
Due November 15 in class.
(Two of these questions will be graded.)

1) For the following types of scenarios, describe whether this is a situation of moral hazard or adverse selection and what you might predict will happen.

    a) New markets for mortgage backed securities mean that local banks can now sell off their mortgages. They no longer bear the cost of providing loans to households that cannot afford them and later default.
    b) A new credit card company offers credit cards to customers offering a billing period of two months instead of the usual one month.
    c) A new healthcare reform bill requires insurance companies to offer insurance without a clause excluding pre-existing health conditions.
    d) The International Monetary Fund establishes a program to bail out international lenders whenever a country finds itself in an economic crisis and cannot pay its foreign loans.
    e) A university offers financial aid to any student who claims he or she needs it but, because of privacy reasons, is unable to audit the finances of the student's family.

2) Suppose you are in the business of buying old Miro prints. You know that t about 25% of the prints in circulation are fakes and worth \$10. The others are worth \$1000 to you. You cannot tell them apart i) Assuming you are the only buyer around, what would you be willing to pay for a print assuming that you get most prints because they are part of estates that have to be liquidated (for example, they usually belonged to people who have died and whose will instructs that the prints be sold in order to create cash to distribute to the heirs.) ii) Now suppose a rival expert sets up business. This rival is a true expert and can tell fakes from the real thing. She pays \$900 for the prints she purchases. What price should you be willing to pay for prints now? Why?

3) Current health insurance policies often include both a deductible (where the first, say, \$500 of health expenses must be paid by the client) and a co-pay (where a client pays some proportion, say, 20% of the medical bill.) What are the features of private information these conditions are attempting to address? How do they do this?

4) Suppose you are the president of a hand-crafted jewelry co-op. You have about a thousand members. Around half of these members are talented, the other half are not. You cannot tell them apart. They provide you with their products and you sell them. You can either pay them a flat fee of \$50 per piece or a percentage (60%) of the total price that you are able to get for the piece (that is, a "consignment" program). The talented makers can expect their product will sell for a price of \$100 but this price is uncertain so only about half of them choose to sell on consignment. None of the untalented ones are willing to sell on consignment.

    i) When a member chooses the \$50 per piece option, what probability should you assign to the member being talented?
    ii) When the member chooses the consignment option, what probability should you assign to the member being talented?
    iii) In terms of some terminology in our lectures, what phenomenon of the members behavior is being observed?