Wilf Csaplar Jr. Economics 301 Homework #5 **Due Monday 10/13**

Place your name on the back of this sheet of paper and nowhere else. Staple your answers on the front of this sheet of paper. Failure to follow these directions will cost you 1 point. Your assignment will be typed, except graphs can be drawn by hand and mathematical equations can be done by hand. Failure to type it will cost you 10 points. If you use double-sided printing or print on the back of scrap paper, I will give you one additional point.

It is probably best to draw your graphs before you write your explanation because your explanation will heavily depend upon the graph.

1) (20 points) Suppose that a risk averse person has an income of $50,000. There is a 10% probability that something will go wrong and cost them $20,000. Find the expected payoff. Draw their utility function. Given your diagram, how much they would be willing to pay for insurance against that event. Show all work and briefly explain how you found your answer.

2) (25 points) Draw the diagram with the portfolio return on one axis and the standard deviation on the other axis. Suppose the riskless return is 3% and the risky return is 10% with a σ_M of .4. Draw the budget constraint. Draw normal shaped indifference curves for a risk averse person. Given your diagram, how much of this person's portfolio should be in stocks and what expected return should they get and what is their standard deviation? Briefly explain how you found the budget constraint, the percentage in stocks, the return and the standard deviation.

3) (20 points) Suppose that if you buy 200 hats, they cost $40 each, but if you buy 150 hats, they cost you $50 each. You can sell hats for $70 each. If you do not sell the hats, you can sell them back to the wholesaler for half of what you paid. Suppose that there is a 60% chance that you can sell 200 hats and 40% chance that you can only sell 150 hats. What are the expected profits if you order 150 hats and if you order 200 hats? If you knew beforehand what the state would be, so you would have nothing to sell back, then what would the expected profits be? How much would you be willing to pay for the information about the state? Show all work and briefly state what you did.

4) (10 points) Explain how diversification can improve expected utility.

5) (15 points) Why is it hard to tell if there is a *bubble* or an *information cascade*?

6) (10 points) What is meant by the *endowment effect*? Give an example and explain how it fits the definition.