Youngberg

Econ 280—Bethany College

**Homework 05**

Answer all the following on a ***typed, stapled*** (if applicable)separate sheet of paper. You do not need to type equations and graphs. I charge 25 cents to staple your homework. Make sure that you justify your answers, use your own words, and show your work. All questions are equally weighted.

1. Recall an English auction and a 2nd price sealed bid auction have the same strategy. Why do these auctions have the same strategy (it is helpful to explain how one auction can easily be transformed into the other)? In other words, why are these auctions basically the same auction?
2. Provide an example when someone might suffer from the winner’s curse. Do not use the jar of coins or bidding on oil field examples we used in class. Remember to justify your example.
3. Why does the Revenue Equivalence Theorem require risk neutrality? (One way to answer this question is to explain the intuition behind why revenue for different auctions change when you remove this requirement.)
4. In *A Beautiful Mind*, the story of John Nash, Nash is at a bar with several male friends. There are several brunette women and one blonde. All men prefer the blonde. Nash Equilibrium is described as:

If we all go for the blonde and block each other, not a single one of us is going to get her. So then we go for her friends, but they will all give us the cold shoulder because no one likes to be second choice. But what if none of us goes for the blonde? We won't get in each other's way and we won't insult the other girls. It's the only way to win.

This is quite possibly the worst description of Nash Equilibrium ever written. Why is this not Nash Equilibrium?

1. Below is a game called Battle of the Sexes (or, more generally, Battle of Two Cultures). Andrew and Betty want to go see a movie. Betty prefers action and Andrew prefers comedy. But as much as they like their respective genres, they’d much rather be with one another. Find Nash Equilibrium. Justify your answer.

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| --- | --- |
|  | Betty |
| See Comedy | See Action |
| Andrew | See Comedy | 3 , 2 | 1 , 1 |
| See Action | -1 , -1 | 2 , 3 |