Worksheet completed on _____

In the last class we studied hypothetical willingness-to-pay (WTP) for Guaranteed Tender beef. Now we will look at actual WTPs collected by my colleague, Jayson Lusk. Also, we will use a Solver algorithm to discover the profit-maximizing premium instead of the large spreadsheet constructed in the last class.

We will assume that this sample is a representative sample of all consumers, and thus conclude that if a premium maximizes profits for this sample it maximizes profits for all consumers. Like in the previous worksheet, assume the extra cost of producing Guaranteed Tender steaks is $0.07 per pound. Notice the units of WTP….

Step 1: Download the data at:
http://seeds.okstate.edu/SeedsPPP/CN,1/TenderBeef/JaysonSteakData.xls

Step 2: Create variables named *Premium, Cost,* and *Profits* in cells D7 through E9. Make sure the cells with the values are given names of *Premium, Cost,* and *Profits*. Both *Premium* and *Cost* have hypothetical values, and *Profits* will be given a formula subsequently.

Step 3: In column C create a variable that calculates the profits made from each observation, based on whether the WTP exceeds the premium. The profits if the steak is purchased equals the premium minus the cost, and the person buys the steak if their WTP is greater than or equal to the cost.

Step 4: Set the *Profits* equal to the sum of the profits from each observation.

Step 5: Use Solver to calculate the profit-maximizing premium. First try the Solver starting out with a premium of $1.00. Then try the Solver with a premium of $0.00. Then try it at $10.00…

What is the profit maximizing premium?

Worksheet completed on _____

	A	B	C	D	E
1	Data concerns experiment conducted by Dr. Jayson L. Lusk.				
2	WTP is consumers' willingness-to-pay extra for a				
3	Certified Angus Beef steak over a regular steak				
4					
5	WTP = bid in BDM auction for exchanging regular steak for a Certified Angus Beef				
6	**Observation**	**WTP ($ / lb)**	Profit		
7	1	0.00	0.000	Premium	$ 3.33
8	2	0.00	0.000	Cost	$ 0.070
9	3	2.00	0.000	Profits	$ 68.46
10	4	0.20	0.000		