## Experiment 3, Section 3

Problem 3.1
Part a) rise, less than
Part b) fall, less than
Part c) 225
Part d) about the same as

Problem 3.2
Part a) fall, less than
Part b) rise, less than
Part c) 210
Part d) more than

Problem 3.3

Table 3.7: Effects of a Sales Tax on Suppliers


Problem 3.4
Figure 3.8: Effect of a Sales Tax on Demanders


In this exercise, the competitive equilibrium price may fall in a discrete range.
If that occurs, the mean price in the table below presents that range, and the profits to buyers and sellers are calculated using the midpoint of that range.

Problem 3.5
Table 3.8 Competitive Equilibrium Predictions

|  | No Tax <br> $($ Session 1) | Sellers Pay Tax <br> $($ Session 2) | Buyers Pay Tax <br> $($ Session 3) |
| :--- | ---: | ---: | ---: |
| Mean Price | $\$ 24.00$ | $\$ 30-\$ 33$ | $\$ 15-\$ 18$ |
| Number of Transactions | 20 | 12 | 12 |
| Total Profit of Buyers | $\$ 220.00$ | $\$ 102.00$ | $\$ 102.00$ |
| Total Profits of Sellers | $\$ 220.00$ | $\$ 102.00$ | $\$ 102.00$ |
| Total Taxes Collected | $\$ 0.00$ | $\$ 180.00$ | $\$ 180.00$ |
| Total of Profits Plus Taxes | $\$ 440.00$ | $\$ 384.00$ | $\$ 384.00$ |
| Excess Burden |  | $\$ 56.00$ | $\$ 56.00$ |

Problem 3.6
Table 3.9 Comparing Theory and Experiment
Sellers Pay Sellers Pay Tax Buyers Pay Tax (Session 3)
(Session 2)
Cpmp. Exp.

| Prediction | Outcome | Prediction |  |
| ---: | ---: | ---: | ---: |
| \$30- $\$ 33$ | $\$ 31.07$ | $\$ 15-\$ 18$ | $\$ 17.46$ |
| 12 | 15 | 12 | 14 |
| $\$ 102.00$ | $\$ 99.00$ | $\$ 102.00$ | $\$ 80.50$ |
| $\$ 102.00$ | $\$ 91.00$ | $\$ 102.00$ | $\$ 92.50$ |
| $\$ 180.00$ | $\$ 225.00$ | $\$ 180.00$ | $\$ 210.00$ |
| $\$ 384.00$ | $\$ 415.00$ | $\$ 384.00$ | $\$ 383.00$ |
| $\$ 56.00$ | $-\$ 9.00$ | $\$ 56.00$ | $\$ 23.00$ |

Problem 3.7
Part a). Decrease price to $\$ 30$.
Part b). No effect.
Part c). No effect.
Part d). Decrease profits by $\$ 20,000$
Part e). No excess burden
Problem 3.8
Part a). No effect.
Part b). None.
Part c). Increase price by $\$ 20$.
Part d). None.

