1. Cathy and Gina are caught cheating on their adjunct quizzes. They are placed in two separate rooms, and they are given the following choices: confess or not confess. Assume Cathy and Gina do not know each other very well (i.e. they will not collude). Circle the Nash equilibrium (result of this game when all players play their best strategies given what their competitors are doing).

|  | Cathy |  |  |
| :---: | :---: | :---: | :---: |
|  |  | Confess | Not Confess |
|  | Confess | Cathy: 8 years in Jail Gina: 8 years in Jail | Cathy: 10 years in Jail Gina: 0 years in Jail |
|  | Not Confess | Cathy: 0 years in Jail Gina: 10 years in Jail | Cathy: 1 years in Jail Gina: 1 years in Jail |

2. What is Gina's dominant strategy? Explain.
3. What is Cathy's dominant strategy? Explain.
4. What prevents Cathy and Gina from colluding?
5. Michael and Amy are the only two producers of widgets in the world. They are given the following choices: raise or lower prices on widgets. Assume this is a one-shot game. Assume there is no collusion. Assume no uncertainty. Circle the Nash equilibrium.

|  | Amy |  |  |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \overline{\mathbb{D}} \\ & \stackrel{\pi}{0} \\ & \dot{\sum} \end{aligned}$ |  | Raise Prices | Lower Prices |
|  | Raise Prices | Amy: $\$ 500$ profits Michael: $\$ 500$ profits | Amy: $\$ 600$ profits Michael: $\$ 400$ profits |
|  | Lower Prices | Amy: $\$ 300$ profits Michael: $\$ 600$ profits | Amy: $\$ 400$ profits Michael: $\$ 300$ profits |

6. What is Amy's dominant strategy? Explain.
7. What is Michael's dominant strategy? Explain.
8. Winnie and James are the only producers of Ambrosia which is a new secretly-formulated high-demand perfume for women and men. They are given the following choices: raise or lower production. Assume this is a one-shot game. Assume there is no collusion. Assume James thinks that Winnie is out to put him out of business. Risk and uncertainty are now introduced into the game. Circle the maxmin equilibrium.

|  | Winnie |  |  |
| :--- | :--- | :--- | :--- |
| $\stackrel{ }{\infty}$ | Raise Production |  | Raise Production |
|  |  | Lower Production |  |
|  | Lower Production | James: $\$ 500$ profits | Wames: $\$ 300$ profits |
|  |  | Wamnie: $\$ 300$ profits | Winnie: $\$ 400$ profits |
|  |  | James: Shut-down | James: $\$ 400$ profits |

9. What is Winnie's dominant strategy? Explain.
10. What is James dominant strategy? Explain.
11. What does James choose to do? Assume he knows Winnie's dominant strategy.
