Worksheet #29: Characterizing Solutions to the Dining Philosophers Problem

Name: _____   Netid: _____

For the five solutions studied in today's lecture, indicate in the table below which of the following conditions are possible and why:

1. **Deadlock: when all philosopher tasks are blocked (neither thinking nor eating)**
2. **Livelock: when all philosopher tasks are executing but ALL philosophers are starved (never get to eat)**
3. **Starvation: when one or more philosophers are starved (never get to eat)**
4. **Non-Concurrency: when more than one philosopher cannot eat at the same time, even when resources are available**

	Deadlock	Livelock	Starvation	Non-concurrency
Solution 1: **synchronized**				
Solution 2: **tryLock/ unLock**				
Solution 3: **isolated**				
Solution 4: **object-based isolation**				
Solution 5: **semaphores**				