All answers are to be typed. This is **NOT** a programming assignment, no compiler needed, which also means it is due at class time.

The Dining Savages Problem. A tribe of savages eats communal dinners from a large pot that can hold $M$ servings of stewed missionary. When a savage wants to eat, he helps himself from the pot, unless it is empty. If the pot is empty, the savage wakes up the cook and then waits until the cook has refilled the pot. Implement the actions of the savages and cook using monitors. Your solution should avoid deadlock and awaken the cook only when the pot is empty.