**Catching the Flu!**

**Description of Problem:** As a part of the homecoming week celebration, students are having an ethnic food tasting party in the foreign language department. Many types of food and drink are arranged buffet style and the students are having a swell time tasting food and swapping tastes from each other's cups. Each of the thirty students shares cups with three other students. Unknown at the time one student was coming down with the flu, and although the student was contagious, he didn't show any symptoms of the flu....Yet!

Members of the class include the homecoming queen and the starting quarterback from the football team. **(1)** What percentage of the class is going to get infected with the flu at this party? **(2)** What is the probability that both the quarterback and homecoming queen will be infected?