**A Guaranteed Millionaire**

You decide that you've had it with playing the lottery because you never win anything. You hear about a company in Australia that tried to buy every possible ticket to ensure that they would win. Since this seems to be a full-proof way to be a guaranteed millionaire, you decide to give it a shot.

First, you must determine how many tickets are possible. In Colorado, the lottery balls have the numbers 1 - 46 on them and you must pick 6 numbers.

a. Determine how many possible tickets exist for the Colorado lottery.

b. Now, you need to come up with a plan to buy all those tickets. With your group, develop a scheme to do this. Be sure to include all costs, number of people involved, and time it would take to carry out and any other information crucial to the plan. You will also be asked to explain and justify the method to the rest of the class. You may assume that the entire jackpot is yours if you win in immediate cash. (Even though we know this is not true)

A research company out of California hears about your operation and wants to know what the lowest jackpot would have to be to guarantee at least $1 dollars for each person involved in the plan.

c. Determine the lowest jackpot for your plan. Would you revise your plan given this idea?