Classroom Activity 3   Math 113   Name : _____
10 pts   Intro to Applied Stats

Materials Needed:
    Bags of candy.

Instructions:
    Do NOT look into the bag until instructed to do so

1.   Any candy wrapped in _____ paper will be considered a success. Any
      other color will be a failure.

2.   Without looking, reach into the bag and withdraw one piece of candy. If the piece
      of candy is wrapped in the color chosen as success, then write "Y" (for yes),
      otherwise write "N" (for no) in the table below. Replace the candy into the bag
      and shake the bag to mix the contents. Repeat this 19 more times to have 20 trials.

3.   Based on the results of your group's twenty trials, estimate the probability of
      success on a single trial using the relative frequency approach to probability.

4.   Do you expect each group to get the same answer? Explain.

5.   Collect the results from each group and combine the results. What is the estimate
      of the probability of success on a single trial? Do you expect this estimate to be
      closer to the true probability of success than many of the group estimates?

6.   Now open the bag and count the total number of candies and the number defined as
      success. Use the classical approach to find the true probability of success.

7.   Did the combined class estimate do better or worse than your group?