

Table Number: _____

Group Name: _____

Group Members: _____

SIMULATION ACTIVITY



To prepare: Each individual chooses

- 1 ace
- 2 face cards
- 3 number cards

A candy company is having a contest. Each candy bar wrapper has one letter printed on its inside. The letters are W, I, and N and they are printed in ratios of 3:2:1 respectively. If you spell the word “WIN” with candy bar wrappers, you receive a year’s supply of the candy bars. To determine how many candy bars you should buy to spell WIN, perform the following simulation:

1. Let a number card represent a *W*, a face card represent an *I*, and an ace represent an *N*.
2. Shuffle the cards. Choose one card and record the corresponding letter below.
3. Repeat the process of shuffling, choosing, and recording until each letter has been obtained.
4. Record the number of tries it took you to spell out the word “WIN.”
5. Repeat this simulation two more times and record how many times you had to shuffle the cards and choose one before you spelled WIN.
6. Combine your results with others at your table so that you have a total of 27 trials. From this combined data, estimate a reasonable number of candy bars that need to be purchased in order to WIN. Explain your reasoning. How did you come up with this estimate?