

Table Number: \_\_\_\_\_

Group Name: \_\_\_\_\_

Group Members: \_\_\_\_\_

## Reese's Pieces Summary Page

### Parts I & II

1. Do you know the proportion of orange candies in the population? \_\_\_\_\_ In the sample? \_\_\_\_\_  
Which one can we always calculate? \_\_\_\_\_ Which one do we have to estimate?  
\_\_\_\_\_
2. Describe the variability of the distribution of sample proportions of the whole class (the one on the whiteboard) in terms of shape, center, and spread. *This is a most important question!*  
**Shape:**  
  
**Center:**  
  
**Spread:**
3. Where does the value of 0.2 (i.e. 5 orange candies) fall in the distribution of sample proportions? Is it in the tail or near the middle? Does this seem like a rare or unusual result?
4. Find the probability that the proportion of orange candies in a random sample of 25 Reese's pieces will be less than .2

### Part III & IV.

5. What happens to the mean, standard deviation, and distribution graph as you increase the number of samples?
6. As the sample SIZE increases, what happens to the distance the sample statistics are to the population parameter?
7. Describe the effect of sample size on the distribution of sample statistics in terms of
  - a) **Shape**
  - b) **Center**
  - c) **Spread.**