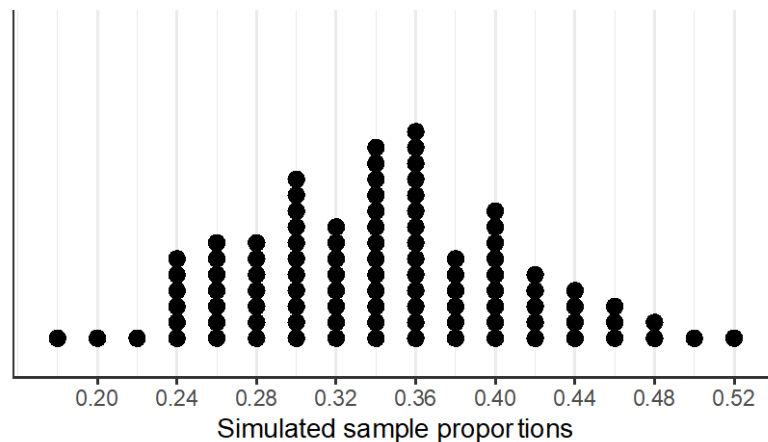


Name \_\_\_\_\_

### Investigation 16: Too Many Peanuts?

#### Exit Ticket

The American Society for the Prevention of Cruelty to Animals (ASPCA) claims that approximately 35% of U.S. households have at least one cat. Assuming that the ASPCA's claim is correct, a sampling distribution of the 100 sample proportions based on sample size of 50 and population proportion of 0.35 is shown below.



Mean of simulated sampling distribution = 0.35 and a standard deviation = 0.06

1. Describe the simulated sampling distribution of the sample proportion.
2. A random sample of 50 U.S. households found the proportion of households with at least one cat was 0.22. Mark the sample result of 0.22 on the dot plot.  
How many sample proportions are less than or equal to the sample result of 0.22?
3. What is an estimate for the probability of obtaining a sample proportion of 0.22 or less from a population with 0.35 households with a cat?
4. Do you think that the proportion of households with a cat (22%) was an unusual result assuming that the ASPCA's claim of 35% is correct? Explain your answer.