

Lesson 28: Populations and Random Sampling

Homework

Name _____ **Date** _____

Directions: Solve the following problem.

The school store sells pens in a variety of colors. During the week the store sells pens to 80 different girls. The store manager places the receipts for those 80 purchases in a bag and has one of the students randomly choose 20 names. The results of that random sampling is shown in the table below.

Color	Number of Pens
Black	8
Blue	5
Red	3
Green	4

1. How large is the total population of sales of pens?
2. How large is the random sample?
3. Is this sample a valid representation of the population? _____. Explain your answer.
4. How could the validity of the sample be improved?
5. Based on this survey, which color pen is the most popular?
6. Make two other inferences based on the result of the survey.
7. After the survey results were counted, the store manager made the following inference?
 - We should order more black pens than blue pens.Is that true based on the random sample? _____. Explain your answer.