

# More..Making Predictions

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

## 7<sup>th</sup> Grade Math

A **random sample** was taken of 85 students. The student council collected data to see what kind of snacks were chosen most often by the students.

1. Which snack do you prefer?

Pretzels	Potato Chips	Apple	Cookies
11	30	18	26

2. What drink do you prefer with your snack?

Gatorade	Water	Pop	Juice	Choc. Milk
19	13	9	14	30

Answer the following questions and **SHOW YOUR WORK** (even if you think you can do it in your head).

1. What percentage of **the sample** preferred potato chips?
2. If there are 265 students in the 7<sup>th</sup> grade class, predict how many of these 265 students (**the population**) would prefer potato chips.
3. What percentage of the samples favorite snack was apples?
4. Based on this survey, predict how many 7<sup>th</sup> graders would prefer to eat an apple?
5. What percentage of the sample would prefer water to drink with their snacks?
6. Approximately, how many 7<sup>th</sup> graders do you predict feel the same way?
7. Approximately how many 7<sup>th</sup> graders do you predict would prefer to drink Gatorade?

## Finding the Total Population

- 1) Mrs. Hodges wants to find out how many Geese occupy the area around Lake Geneva. So she and his Research Assistant (RA), Mrs. Foreback, set out shore nets to trap the birds. They managed to trap and fit 50 geese with neck bands. After 1 week, the RA returns to the site with a pair of binoculars and counts 130 geese, of which 30 geese had neck tags. From this data, approximately how many geese are estimated to be at the Lake?
  
- 2) Over the period of a month, you trap and tag 8 Red foxes, with uniquely colored tags, in the 'Watchmacallit Forest' in New Jersey. You set up motion sensitive remote cameras up at various locations in the forest. 1 months later, you collect all the the cameras and review the pictures. You record the results and note that The cameras took pictures of 3 tagged foxes and 5 Red foxes you without tags. What would be the total population of Red foxes in the area?
  
- 3) Suppose that the high school in a town has 500 students. A random survey of 200 people in the town finds 40 high school students. What is the estimate for the number of people in the town?
  
- 4) Suppose that wildlife workers capture 328 penguins on an island, mark them, and allow them to mix with the rest of the population. Later, they capture 200 penguins, 64 of which are marked. What is the estimate for the number of penguins on the island?