1. Nora is studying how much freshmen in California read per week. She asks 32 freshmen in a SVHS English class how many hours they read per week. State the following:

a) the sample

The people actually in her study are _____ .

b) the population

The people she is studying in general is _____ .

2. Describe how her results might be affected by sampling bias. Refer to $\bar{x}$ and μ in your answer.

Students at SVHS tend to be _____ *compared to students in general. Therefore, her* _____ *might be too high of an estimate of* _____ *if it is intended to represent the average for all California freshmen.*

3. Fill in each blank with the correct symbol for a statistic or parameter.

a) 6-sided dice roll "6" _____ $= \frac{1}{6}$ of the time.

One sixth of all die rolls are a 6, and the rest are a 1, 2, 3, 4, or 5.

b) IQ scores have a standard deviation of _____ $= 15$.

The standard deviation of all IQ scores is 15.

c) _____ $= 64\%$ of Californians are fully vaccinated.

64% of all Californians are fully vaccinated, and 36% are partially vaccinated or not vaccinated.

d) Nine male black labs had an average weight of _____ $= 68$ pounds.

These nine dogs had a mean weight of 68 pounds.

e) Last semester, the average grade on the Statistics final was _____ $= 80\%$.

The mean score of all students who took the Statistics final last semester was 80%.

f) _____ $= 21\%$ of people surveyed estimated they exercise for more than two hours per week on average.

21% of the people surveyed estimated they exercise for more than two hours per week on average, and 79% estimated they exercise for two hours or less per week on average.

4. Hannah weighs 15 Coke cans and finds an average weight of 343 g.

a) Is the sample mean $\bar{x}$ known?

Does she know the average weight of the Coke cans she weighed?

b) Is the population mean μ known?

Does she know the average weight of all Coke cans?

c) State or estimate $\bar{x}$.

d) State or estimate μ.

e) Is she using probability, or is she using statistics?

She is using _____ *, because she knows the* _____ *mean and she is using it to* _____ *the* _____ *mean.*