

Lesson 7.3 **Extra Practice**

Identify the population and the sample.

- All students in a school **pop**
30 students in the school **sample**
- 75 strawberries in a field **sample**
All the strawberries in the field **pop**

Determine whether the sample is **biased** or **unbiased**. Explain.

- You want to estimate the number of students in your school who are on athletic teams outside of school. You survey members of your school's athletic teams. **biased**
- You want to estimate the number of students in your school who think there should be healthier school lunches available. You ask every 5th person waiting in the cafeteria lunch line. **unbiased**

Which sample is better for making an estimate? Explain.

5. **Estimate the number of residents in St. Lucie County who own a home.**

Sample A	A random sample of 100 residents in the county
Sample B	A random sample of 100 residents in the city of Fort Pierce

sample is big enough and in the county

6. **Estimate the number of people at a beach who are wearing sunscreen.**

Sample A	A random sample of 50 people at the beach
Sample B	A random sample of 5 people at the beach

too small

Determine whether you should survey the population or a sample. Explain.

- You want to know the average weight of the members of your family. **population**
- You want to know the number of grocery stores in Florida that carry your favorite cereal. **sample - cannot go to EVERY grocery store in the state**
- A survey asked 60 randomly chosen students if they eat school lunch. Forty said yes. There were 560 school lunches sold today. Estimate the number of students who attend the school.
 $\frac{40}{60} = \frac{560}{x}$ **x = 840**
- You survey 25 randomly chosen college students from your local college to name their dietary preference. There are 4000 students at the college. Estimate the number of students at the college who prefer a vegetarian diet.

$$\frac{4}{25} = \frac{x}{4000} \quad x = 640$$

Dietary Preference	
Omnivore	19
Vegetarian	4
Vegan	2