

Determine sample methods Worksheet

1. Is the following statement an accurate method to collect a simple random sample?

Principal Alexandra wants to know whether or not students at her school enjoy the burgers in their school lunch. Instead of surveying all the students, she decides to survey a sample of 484 students. She divides the students into groups based on the cafeteria table they sit at. Then she randomly selects 7 cafeteria table and then surveys all the students at those tables.

- ☐ Yes, this is a simple random sample
- ☐ No, this is not a simple random sample

3. Is the following statement an accurate method to collect a stratified sample?

Principal Ingrid wants to know whether or not students at her school enjoy the sushi in their school lunch. Instead of surveying all the students, she decides to survey a sample of 481 students. She divides the students into groups based on their grade level. Then she chooses a random subset of students from each grade level, with each subset having a size proportional to the number of students in that grade level. Then, she combines the subsets to form the sample.

- ☐ Yes, this is a stratified sample
- ☐ No, this is not a stratified sample

2. Is the following statement an accurate method to collect a simple random sample?

Farmer Beverly wants to advertise the weight of cows on her farm. Instead of weighing all the cows, she decides to weigh a sample of 421 cows. She divides the cows into groups based on the pasture they are in. Then she randomly selects 6 pastures and then weighs all the cows in those pastures.

- ☐ Yes, this is a simple random sample
- ☐ No, this is not a simple random sample

4. Is the following statement an accurate method to collect a stratified sample?

Police chief Diego wants to know about the safety of the streets in his city. Instead of patrolling the entire city, he decides to investigate a sample of 322 streets. He assigns a unique number to each street. Then he uses a random number generator to select 322 streets for the sample.

- ☐ Yes, this is a stratified sample
- ☐ No, this is not a stratified sample

5. Is the following statement an accurate method to collect a systematic sample?

Marine biologist Roger wants to know about the health of coral colonies in the Tubbataha Reef. Instead of examining the entire reef, he decides to investigate a sample of 370 coral colonies. He assigns a unique number to each coral colony. Then he uses a random number generator to select 370 coral colonies for the sample.

- ☐ Yes, this is a systematic sample
- ☐ No, this is not a systematic sample

6. Is the following statement an accurate method to collect a cluster sample?

Principal Marcus wants to know whether or not students at his school enjoy the tacos in their school lunch. Instead of surveying all the students, he decides to survey a sample of 218 students. He divides the students into groups based on the cafeteria table they sit at. Then he randomly selects 4 cafeteria table and then surveys all the students at those tables.

- ☐ Yes, this is a cluster sample
- ☐ No, this is not a cluster sample

8. Determine the sampling method used in the following scenario:

Farmer Reyansh wants to advertise the weight of cows on his farm. Instead of weighing all the cows, he decides to weigh a sample of 118 cows. He randomly selects one cow from a list and then selects every 5th cow after that until 118 are selected.

- ☐ Simple random sampling (SRS)
- ☐ Stratified sampling
- ☐ Systematic sampling
- ☐ Cluster sampling

Determine sample methods Answer key

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