

Congratulations! You passed!  
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1. Fill in the blank: A \_\_\_\_\_ sample accurately reflects the characteristics of a population.

1 / 1 point

- ☐ nonrepresentative
- ☒ representative
- ☐ very small
- ☐ biased

☒ Correct

2. Which of the following activities are stages in the typical sampling process? Select all that apply.

1 / 1 point

- ☐ Make a point estimate of a population parameter
- ☒ Identify the target population

☒ Correct

- ☒ Select the sampling frame

☒ Correct

- ☐ Perform exploratory data analysis

3. Which of the following statements accurately describe probability sampling? Select all that apply.

0.75 / 1 point

- ☒ Probability sampling uses random selection.

☒ Correct

- ☒ Probability sampling can result in representative samples.

☒ Correct

- ☒ Probability sampling is typically inexpensive, convenient, and quick.

☒ This should not be selected  
Review [the video about the sampling process](#).

☐ Probability sampling is based on the personal preferences of the researcher.

4. A data professional is conducting an employee satisfaction survey. First, they list all the employees alphabetically by first name. Then, they randomly choose a starting point on the list and pick every third name to be in the sample. What sampling method are they using? 1 / 1 point

- ☐ Simple random sampling  
☐ Stratified random sampling  
☒ Systematic random sampling  
☐ Cluster random sampling

☒ Correct

5. Which sampling method involves choosing members of a population who are easy to contact or reach? 1 / 1 point

- ☐ Voluntary response sampling  
☒ Convenience sampling  
☐ Purposive sampling  
☐ Snowball sampling

☒ Correct

6. Which of the following statements accurately describe a sampling distribution? Select all that apply. 1 / 1 point

☒ The distribution of a sample mean and the distribution of a sample proportion are examples of sampling distributions.

☒ Correct

☐ A sampling distribution is a probability distribution of a population parameter.

☒ A sampling distribution can be visualized with a histogram.

☒ Correct

☒ A sampling distribution represents the probability distribution of a statistic under random sampling.

☒ Correct

7. What concept states that the sampling distribution of the mean approaches a normal distribution as the sample size increases?

1 / 1 point

- ☐ Standard error
- ☐ Sampling frame
- ☒ Central limit theorem
- ☐ Bayes' theorem

☒ Correct

8. A data professional is working with data about annual household income. They want to use Python to simulate taking a random sample of income values from the dataset. They write the following code: `sample(n=100, replace=True, random_state=230)`. What is the random seed?

1 / 1 point

- ☐ 23
- ☐ 10
- ☒ 230
- ☐ 100

☒ Correct