Congratulations! You passed!

Grade received 80% | Latest Submission Grade 80% | To pass 80% or higher

Go to next item

1. A data team at a household goods retailer is asked to predict the success of an upcoming sale on patio furniture. To make an informed prediction, they use statistics to analyze data on past patio furniture sales. What type of probability are they using? **0 / 1 point**

- ○ Objective
- ◉ Independent
- ○ Subjective
- ○ Dependent

Incorrect
Review the video about the main types of probability.

2. If all outcomes of an event are equally likely, how is its probability calculated? **1 / 1 point**

- ○ Divide the total number of possible outcomes by the number of desired outcomes.
- ◉ Divide the number of desired outcomes by the total number of possible outcomes.
- ○ Divide the total number of possible outcomes by the number of certain outcomes.
- ○ Divide the total number of certain outcomes by the number of possible outcomes.

Correct

3. A six-sided die is rolled. To find the probability of rolling either a one or a three, what rule of probability should be used? **1 / 1 point**

- ○ Division rule
- ○ Complement rule
- ◉ Addition rule
- ○ Multiplication rule

Correct

4. Fill in the blank: Two events are _____ if the occurrence of one event does not change the probability of the other event. **1 / 1 point**

- ○ continuous
- ○ discrete
- ○ dependent
- ◉ independent

Correct

5. What concept refers to the probability of an event before new data is collected? **1 / 1 point**

- ○ Posterior probability
- ○ Subjective probability
- ○ Conditional probability
- ◉ Prior probability

Correct

6. Which of the following are examples of discrete random variables? Select all that apply. **1 / 1 point**

- ☑ The number of radios produced in a factory each day

Correct

- [ ] The time it takes to drive from one city to another city
- [ ] The length of an airplane
- [x] The number of rooms in a hotel

Correct

7. Fill in the blank: The _____ distribution best models the number of heads in 10 fair coin flips. **1 / 1 point**

- ○ Bernoulli
- ◉ Binomial
- ○ Poisson
- ○ Normal

Correct

8. A data professional working for a smartphone manufacturer is analyzing sample data on the weight of a specific smartphone. The data follows a normal distribution, with a mean weight of 150g and a standard deviation of 10g. What data value lies 3 standard deviations below the mean? **1 / 1 point**

- ○ 180g
- ○ 160g
- ◉ 120g
- ○ 130g

Correct

9. If a data value has a z-score of 0, what does the value equal? **1 / 1 point**

- ○ The median
- ○ The standard deviation
- ○ The mode
- ◉ The mean

Correct

10. A data analytics team at a water utility works with a dataset that contains information about local reservoirs. They determine that the data follows a normal distribution. What Python function can they use to compute z-scores for the data? **0 / 1 point**

- ○ `mean.zscore()`
- ○ `stats.zscore()`
- ○ `median.zscore()`
- ◉ `describe()`

Incorrect
Review the video about working with probability distributions in Python.