

Congratulations! You passed!
Grade received 100%
To pass 80% or higher
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1. What is conditional probability?

1 / 1 point

- ☐ The probability of a highly unlikely event occurring
 - ☐ The probability of a single random event occurring
 - ☒ The probability of an event occurring given that another event has already occurred
 - ☐ The probability of two events occurring at the same time
- ☒ Correct
Conditional probability refers to the probability of an event occurring given that another event has already occurred.

2. Suppose two events occur: The first event is drawing an ace from a standard deck of playing cards, and the second event is drawing another ace from the same deck. Note that the first ace is not reinserted into the deck after it is drawn. What term is used to describe these two events?

1 / 1 point

- ☐ Independent
 - ☐ Objective
 - ☒ Dependent
 - ☐ Subjective
- ☒ Correct
These two events are described as dependent because drawing the first ace changes the probability of drawing the second ace. Two events are dependent if the occurrence of one event changes the probability of the other.

3. Fill in the blank: _____ probability is the updated probability of an event based on new data.

1 / 1 point

- ☒ Posterior
 - ☐ Empirical
 - ☐ Prior
 - ☐ Classical
- ☒ Correct
Posterior probability is the updated probability of an event based on new data. It is calculated by updating the prior probability using Bayes' theorem.