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Question 1

(1/1 point)

True or false: Two events are said to be independent if the fact that one occurs does not impact the probability that the other will occur.

- a. True ✔
- b. False

EXPLANATION

True. Two events are said to be independent if the fact that one of the events occurs does not impact the probability that the other will occur.

You have used 1 of 1 submissions

Question 2

(1/1 point)

Which of the following are examples of two events or outcomes that are likely to be independent from each other? (Check all that apply)

- [ ] a. Two siblings are both taller than average .
- [x] b. You roll a “4” twice, when rolling a fair die two times ✔
- [ ] c. It rains today, and your classmate brings an umbrella to class.
- [x] d. The chance that the morning bus arrives late, and the likelihood that your classmate brings a sandwich for lunch ✔

✔

EXPLANATION

B and D are both examples of plausibly independent events. If you have a fair 6-sided die, the chance of rolling a 4 is 1/6. Regardless of which number is rolled on the first attempt, the chance of rolling a 4 remains 1/6 for the second roll. The two events in D are completely unrelated, so we would not expect the realization of one to impact the probability that the other occurs. In contrast, A and C represent pairs of events or outcomes that are likely not independent. If we know that one of a pair of siblings is very tall, we might increase our expectation of the probability that the second of a pair of siblings is tall. Similarly, if you know that there is a high likelihood of rain, then you might believe that there is a higher probability that your classmate brought an umbrella to class.

You have used 1 of 2 submissions