

Quiz 1

⚠ This is a preview of the published version of the quiz

Started: Jun 22 at 9:10pm

Quiz Instructions



Question 1 1 pts

Which of the following is a random variable?

☐

Highest temperature tomorrow.

☐

Number of head when tossing a coin 10 times.

☐

All of them!

☐

Toss a die.

☐

Investment monthly return on a stock.



Question 2 1 pts

Which is correct about independent events and disjoint events?

☐

If two events are independent, they can not both happen at the same time.

☐

None of them is correct!

☐

If two events are disjoint, they can not both happen at the same time.

☐

If two events are disjoint, they must be independent.

☐

If two events are independent, they must be disjoint.



Question 3 1 pts

Which is NOT correct about a discrete random variable?

☐

It can take value of all integers.

☐

Its CDF (cumulative distribution function) is piecewise constant.

☐

It can only take finite many values.

☐

Its distribution can be summarized by the PMF (probability mass function).

☐

It can not take a range of continuous values.



Question 4 1 pts

Which is NOT correct about a continuous random variable?

☐

Its PDF (probability density function) must integrate to 1.

☐

It must take value of the entire real line.

☐

It must take infinite many values.

☐

Its CDF (cumulative distribution function) is non-decreasing.

☐

Its PDF (probability density function) is non-negative.



Question 5 1 pts

Which is correct about Bayes theorem?

☐

Bayes Theorem only holds if two events A and B are independent.

☐

Bayes Theorem only holds if two events A and B are conditionally independent.

☐

It defines independence of two events.

☐

It is the foundation of Bayesian statistics.

☐

It defines conditional independence of two events.

Not saved

Submit Quiz