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Quiz 1

Checkboxes

1/1 point (graded)

What is probability and statistics useful for?

☒ To quantify uncertainty ✓

☐ To find exact solutions to mathematical problems

☒ To make predictions about future events ✓



Answer

Correct:

Video: Why Probability and Statistics

Submit

i Answers are displayed within the problem

Checkboxes

1/1 point (graded)

Which of the following problems can best be solved with probability and statistics?

☒ Predicting the number of rainy days in April ✓

☐ Finding the interest on a 30-year fixed rate mortgage

☒ Estimating your potential winnings in a game of Blackjack ✓

☐ Finding the amount of turf required to cover a football field



Answer

Correct:

Video: Why Probability and Statistics

Submit

i Answers are displayed within the problem

Multiple Choice

1/1 point (graded)

Suppose a coin is tossed 1000 times and comes up heads 610 times. Is the coin biased?

☒ Yes, with very high probability ✓

☐ Unclear

Answer

Correct: Video: What is Probability

Submit

i Answers are displayed within the problem

Multiple Choice

1/1 point (graded)

What is the probability of drawing a Queen from a deck of 52 cards?

☐ $\frac{1}{52}$

☒ $\frac{4}{52}$ ✓

☐ $\frac{1}{2}$

☐ $\frac{2}{52}$

Answer

Correct: Video: What is Probability

Submit

i Answers are displayed within the problem

Checkboxes

1/1 point (graded)

Which of the following describe the differences between probability and statistics?

☒ Probability predicts what will happen. Statistics works with what has already happened. ✓

☐ Probability works with observed variables. Statistics is modeled by random variables.

☐ Probability requires existing data. Statistics requires underlying models.



Answer

Correct:

Video: What is Statistics

Submit

i Answers are displayed within the problem

True or False

1/1 point (graded)

If we repeat an experiment many times, the long term frequencies of the outcomes converge to the probabilities.

☒ True ✓

☐ False

Answer

Correct: Video: History of Probability and Statistics

Submit

i Answers are displayed within the problem
