



[Topic 1: Introduction to Probability](#)

[Course](#) > [and Statistics](#)

> [Comprehension Quiz 1](#) > Quiz 1

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

You have used 2 of 4 attempts

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

You have used 1 of 4 attempts

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

You have used 1 of 4 attempts

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

You have used 1 of 4 attempts

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

You have used 1 of 4 attempts

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

You have used 1 of 4 attempts

Discussion


Topic: Topic 1 / Quiz

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- 
[Programming Assignment](#)


The programming assignments naturally require code to be written. Is there any accompanying guide that describes (but not the Python code) the equations th...

3
- 
[Executing Ex1 script in Spyder Python environment](#)


I can execute Ex1 script in Jupyter Notebook. But I can't execute Ex1 script in Spyder Python environment despite importing numpy and matplotlib. It doesn't re...

4
- 
[AssertionError in Testing your functions](#)


Dear fellows, when I run Testing your Functions in Exercise 2, it shows AssertionError in line text report `assert (n,q1,q2,m,r)` and in line `norm_err < 1.0`. My code...

4
- 
[HW1 Exercise 1](#)


When running this code for Exercise 1, I received an AssertionError in the checking function below. Could someone show me how I can modify this code? Thank...

5
- 
[Assignment 1 checking function incorrect estimate](#)


Hi fellows, I'm getting an "estimate incorrect" error in the final checking function in Assignment 1, saying that the probability should be 0.579, instead of my resu...

2
- 
[programming assignment](#)

can somebody provide the code for exercise 2 and explain it because i'm not able to write the code

10
- 
[Problem with Exercise 2 Code](#)

Can anyone tell me what is wrong with my code? I'm getting probabilities that aren't matching the answers. `def estimate_prob(n, k1, k2, m):` within range = 0 for...

2
- 
[Question3](#)

Can you please explain the method used to estimate the $P(k_1 \leq \text{number of heads in } n \text{ flips} < k_2)$? I have calculated the number of the trails with sum of heads b...

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