On Tuesday, February 16th at 6:00AM EST, UTC-5, we will be conducting a brief database maintenance. The event should last about 5 minutes.



MITx: 6.041x Introduction to Probability - The Science of Uncertainty



Unit 0: Overview

- EntranceSurvey
- Unit 1: Probability models and axioms
- Unit 2: Conditioning and independence
- ▼ Unit 3: Counting

Lec. 4: Counting Exercises 4 due Feb 24, 2016 at 23:59 UT

Solved problems

Problem Set 3

Problem Set 3 due Feb 24, 2016 at 23:59 UT

Unit 3: Counting > Problem Set 3 > Problem 1 Vertical: Alice and Bob's card game

■ Bookmark

Problem 1: Alice and Bob's card game

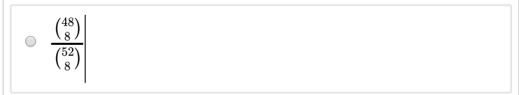
(2/2 points)

Alice plays the following game with Bob. First, Alice randomly chooses a set of 4 cards out of a 52-card deck, memorizes them, and places them back into the deck. (Any set of 4 cards is equally likely.) Then, Bob randomly chooses 8 cards out of the same deck. (Any set of 8 cards is equally likely.) Assume that the choice of 4 cards by Alice and the choice of 8 cards by Bob are independent.

What is the probability that all 4 cards Alice chose were also among the 8 cards chosen by Bob?









You have used 1 of 2 submissions

Printable problem set available here.

DISCUSSION

Click "Show Discussion" below to see discussions on this problem.

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