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Unit overview

Lec. 2: Conditioning and Bayes' rule
Exercises 2 due Feb 2, 2017 20:59 ART

Lec. 3: Independence
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Solved problems

Problem Set 2
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Problem 1 Vertical: Two five-sided dice

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Problem 1: Two five-sided dice

4/4 points (graded)

You roll two five-sided dice. The sides of each die are numbered from 1 to 5. The dice are “fair" (all sides are equally likely), and the two die rolls are independent.

Part (a): Event A is “the total is 10" (i.e., the sum of the results of the two die rolls is 10).

1. Is event A independent of the event “at least one of the dice resulted in a 5"?

   No ✔

2. Is event A independent of the event “at least one of the dice resulted in a 1"?

   No ✔

Part (b): Event B is “the total is 8."

1. Is event B independent of getting “doubles" (i.e., both dice resulting in the same number)?

   No ✔

2. Given that the total was 8, what is the probability that at least one of the dice resulted in a 3?

   0.666 ✔

Submit You have used 1 of 1 attempt

✔ Correct (4/4 points)

Printable problem set available here .

DISCUSSION

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Discussion

Topic: Unit 2/Problem Set 2 / Two five-sided dice

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why the answer to the last question is not 2/5

discussion posted 6 days ago by **SanZhang3db3**

Please correct me if I'm wrong. Sample space:(6,2),(5,3),(4,4),(3,5),(2,6) Given that the total was 8, at least one of the dice resulted in a 3: (3,5),(5,3) So we have 2/5

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2 responses

Ziedbc **Staff**
6 days ago

oh, don't forget it's a 5-sided die...

.....right.....

posted 6 days ago by **SanZhang3db3**

Add a comment

BaysForBayes
3 days ago

Isn't the sample space in the new universe = {3,5}{4,4}{4,4}{5,3}? Or am I missing something?

Why are you listing (4,4) twice?

posted 3 days ago by **rasnt**

I do not understand the answer of question 2

posted 3 days ago by **ssay1996**

@rasnt: AH! Thanks for pointing it out! :) Don't know why I was thinking that they were different!

posted 3 days ago by **BaysForBayes**

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