

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

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Exercises 4 due Feb 24, 2016 at 23:59 UT 🗗

Solved problems

Problem Set 3

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Exercise: Use counting to calculate probabilities (2/2 points)

You are given the set of letters $\{A, B, C, D, E\}$. What is the probability that in a random five-letter string (in which each letter appears exactly once, and with all such strings equally likely) the letters A and B are next to each other? The answer to a previous exercise may also be useful here. (In this and subsequent questions, your answer should be a number. Do not enter '!' or combinations in your answer.)

0.4



Answer: 0.4

Answer:

From the previous exercise, the event of interest has 48 elements. The sample space has 5! = 120 elements. Thus, the desired probability is 48/120 = 2/5 = 0.4.

You have used 1 of 2 submissions

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