



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



Bookmarks

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Unit overview

Lec. 2:
**Conditioning and
Bayes' rule**
Exercises 2 due Feb
17, 2016 at 23:59 UTC

Lec. 3:
Independence
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Solved problems

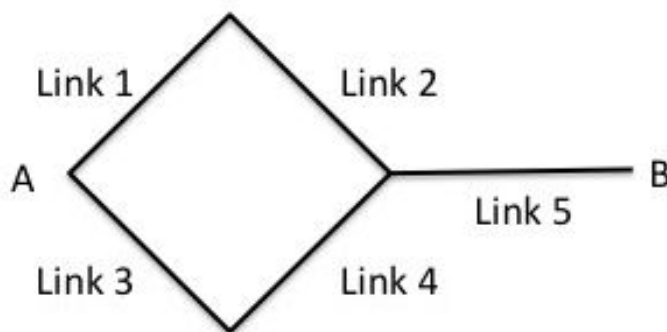
Problem Set 2
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Bookmark

PROBLEM 2: A RELIABILITY PROBLEM (4/4 points)

Consider the communication network shown in the figure below and suppose that each link can fail with probability p . Assume that failures of different links are independent.



1. Assume that $p = 1/3$. Find the probability that there exists a path from A to B along which no link has failed. (Give a numerical answer.)



2. Given that exactly one link in the network has failed, find the probability that there exists a path from A to B along which no link has failed. (Give a numerical answer.)



You have used 2 of 2 submissions

DISCUSSION

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