



Bookmarks

► [Unit 0:  
Overview](#)

► [Entrance  
Survey](#)

► [Unit 1:  
Probability  
models and  
axioms](#)

▼ [Unit 2:  
Conditioning  
and  
independence](#)

[Unit overview](#)

[Lec. 2:  
Conditioning and  
Bayes' rule](#)

[Exercises 2 due Feb 2,  
2017 20:59 ART](#)

[Lec. 3:  
Independence](#)

[Exercises 3 due Feb 2,  
2017 20:59 ART](#)

[Solved problems](#)

[Problem Set 2](#)

[Problem Set 2 due  
Feb 2, 2017 20:59  
ART](#)

► [Unit 3:  
Counting](#)

Unit 2: Conditioning and independence > Lec. 2: Conditioning and Bayes' rule >  
Exercise: Conditional probabilities

## Exercise: Conditional probabilities

[Bookmark this page](#)

### Exercise: Conditional probabilities

2/2 points (graded)

Are the following statements true or false?

1. If  $\Omega$  is finite and we have a discrete uniform probability law, and if  $B \neq \emptyset$ , then the conditional probability law on  $B$ , given that  $B$  occurred, is also discrete uniform.

True ▼

✓ Answer: True

2. If  $\Omega$  is finite and we have a discrete uniform probability law, and if  $B \neq \emptyset$ , then the conditional probability law on  $\Omega$ , given that  $B$  occurred, is also discrete uniform.

False ▼

✓ Answer: False

Answer:

1. True, because the outcomes inside  $B$  maintain the same relative proportions as in the original probability law.
2. False. Outcomes in  $\Omega$  that are outside  $B$  have zero conditional probability, so it cannot be the case that all outcomes in  $\Omega$  have the same conditional probability.

Submit

You have used 1 of 1 attempt



© 2012-2017 edX Inc. All rights reserved except where noted. EdX, Open edX and the edX and Open EdX logos are registered trademarks or trademarks of edX Inc.

