

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

Help



- ▶ <u>Unit 0:</u> Overview
- **▶** Entrance Survey
- **▼** Unit 1: **Probability** models and axioms

Lec. 1: Probability models and axioms

Exercises 1 due Jan 26, 2017 20:59 ART

Mathematical background: Sets; sequences, limits, and series; (un)countable sets.

Solved problems

Problem Set 1

Problem Set 1 due Jan 26, 2017 20:59 ART

▶ <u>Unit 2:</u> Conditioning <u>and</u> independence

Unit 1: Probability models and axioms > Problem Set 1 > Problem 2 Vertical: Set operations and probabilities

Problem 2 Vertical: Set operations and probabilities

☐ Bookmark this page

Problem 2: Set operations and probabilities

3/3 points (graded)

Find the value of $\mathbf{P}(A \cup (B^c \cup C^c)^c)$ for each of the following cases:

1. The events A, B, C are disjoint events and $\mathbf{P}(A)=2/5$.

$$\mathbf{P}\left(A \cup (B^c \cup C^c)^c\right) = \boxed{0.4}$$

2. The events A and C are disjoint, and $\mathbf{P}(A)=1/2$ and $P(B \cap C) = 1/4$.

$$\mathbf{P}\left(A \cup (B^c \cup C^c)^c\right) = \boxed{0.75}$$

3.
$$\mathbf{P}(A^c \cap (B^c \cup C^c)) = 0.7$$
.

$$\mathbf{P}\left(A \cup (B^c \cup C^c)^c\right) = \boxed{0.3}$$

Submit

You have used 1 of 2 attempts

Correct (3/3 points)

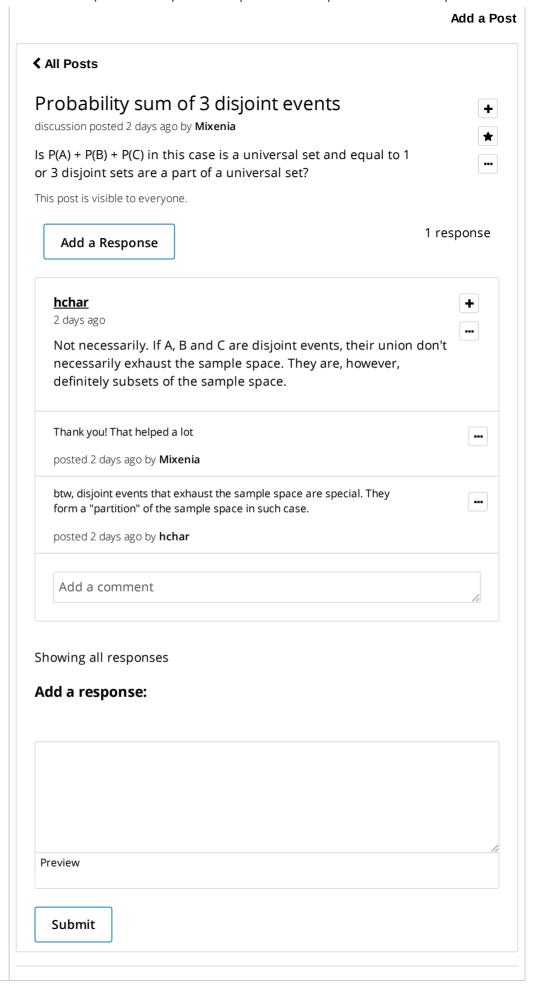
DISCUSSION

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

Discussion

Topic: Unit 1/Problem Set 1 / Set operations and probabilities

Hide Discussion



© All Rights Reserved



© 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.

















