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Exercise: Independence of two events - II

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Exercise: Independence of two events - II

0/1 point (graded)

Let A be an event, a subset of the sample space Ω . Are A and Ω independent?

✗ Answer: Yes, they are independent

Answer:

Yes, because $\mathbf{P}(A \cap \Omega) = \mathbf{P}(A) = \mathbf{P}(A) \cdot 1 = \mathbf{P}(A) \cdot \mathbf{P}(\Omega)$.

Intuitively, $\mathbf{P}(A)$ represents our beliefs about the likelihood that A will occur. If we are told that Ω occurred, this does not give us any new information; we already knew that Ω is certain to occur. For this reason, $\mathbf{P}(A | \Omega) = \mathbf{P}(A)$.

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You have used 1 of 1 attempt

✗ Incorrect (0/1 point)

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