

1. What is your name?

Brock Francom

2. Prior to today's meeting, we've primarily focused on the probabilities of events w/r sample spaces. But now we're also focusing on the probabilities of random variables w/r sample spaces. Clearly random variables are dependent on events but how are the two different? For ready reference, the two definitions are copied below. After studying them again, write a paragraph that explains how random variables differ from events.

An random variable is a function mapping an event to a Real Number. So like the event, the Random variable is a set.
A random variable is a sort of abstraction from the event itself.

38. Definition for *discrete random variable*: $X \in \{ \text{discrete random variables of } \Omega \} \leftrightarrow (|\Omega|, |X| \in \{ \aleph_0, 0, 1, 2, 3, \dots \} \wedge E = \{ \text{events of } \Omega \} \wedge X: E \rightarrow \mathbb{R})$

- 029E. Definition for *event*: $A \in \{ \text{events of } \Omega \} \leftrightarrow A \subseteq \Omega$

3. Smile.