7. Exercise: Conditional expectation example
Exercise: Conditional expectation example

1/1 point (graded)

The random variable Q is uniform on $[0, 1]$. Conditioned on $Q = q$, the random variable X is Bernoulli with parameter q. Then, $\mathbf{E}[X \mid Q]$ is equal to:

- ○ q

- ⦿ Q ✔

- ○ $1 - q$

- ○ $1 - Q$

Solution:

We have $\mathbf{E}[X \mid Q = q] = q$, for all $q \in [0, 1]$, which translates into the abstract statement $\mathbf{E}[X \mid Q] = Q$.

| 提交 | You have used 1 of 1 attempt |

ⓘ   Answers are displayed within the problem

讨论

Topic: Unit 6 / Lec. 13 / 7. Exercise: Conditional expectation example

| 显示讨论 |