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The Bernoulli Distribution - Quiz

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Question 1

1/1 point (graded)

Suppose that you have a Bernouilli variable X with some probability of success given by p and some probability of failure given by q. The mean of X is given by:

- a. p ✔
- b. $p/2$
- c. $(1-p)$
- d. P^2

Explanation

The expectation of a Bernouilli variable X is given by p.

Submit You have used 1 of 2 attempts

✔ Correct (1/1 point)

Question 2

1/1 point (graded)

Suppose that there are two soccer players, Anna and Brian. For each attempt, the probability that Anna makes a shot is p_A and the probability Brian makes a shot is p_B. Suppose that $p_A = 0.2$ and that $p_B = 0.5$.

True or false: The variance of shots successfully made will be greater for Anna than for Brian.

- a. True
- b. False ✔

Explanation

This is false. The variance for a Bernouilli variable is given by p*(1-p). Hence the variance of Anna's shots is (0.2)(0.8)=0.16 and the variance of Brian's 100 shots is (0.5)(0.5)=0.25.

Submit You have used 1 of 1 attempts

✔ Correct (1/1 point)

Discussion
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