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Question 1

(1/1 point)

When transforming a random variable X by a function of a random variable Y=f(X), which of the following is true?

- a. The PDF of X must integrate to 1
- b. The PDF of Y must integrate to 1
- c. The PDFs of both X and Y must integrate to 1 ✔
- d. The PDFs of both X and Y must integrate to 1, and X and Y both follow the same distribution

EXPLANATION

C is correct. When transforming a random variable X by a function of a random variable Y=f(X), the PDFs of both X and Y must integrate to 1, since both are random variables. D is incorrect since it is not the case that both variables need to follow the same distribution.

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