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5. Exercise: Chebyshev inequality

Exercises due May 1, 2020 05:29 IST Completed

Exercise: Chebyshev inequality

1/1 point (graded)

Let Z be normal with zero mean and variance equal to 4. For this case, the Chebyshev inequality yields:

$\mathbf{P}(|Z| \geq 4) \leq$ ✓ Answer: 0.25

Solution:

We have

$$\mathbf{P}(|Z| \geq 4) \leq \frac{\text{Var}(Z)}{4^2} = \frac{4}{4^2} = \frac{1}{4}.$$

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You have used 2 of 3 attempts

i Answers are displayed within the problem

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☒ Is it Ok that this inequality could yield the result that is more than 1?

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