



Bookmarks

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Bookmark

Exercise: Chebyshev inequality

(1/1 point)

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

Answer:
We have

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

You have used 1 of 2 submissions

▼ **Unit 8: Limit theorems and classical statistics**

Unit overview

**Lec. 18:
Inequalities,
convergence, and
the Weak Law of
Large Numbers**

Exercises 18 due Apr
27, 2016 at 23:59 UTC

**Lec. 19: The
Central Limit
Theorem (CLT)**

Exercises 19 due Apr
27, 2016 at 23:59 UTC

**Lec. 20: An
introduction to
classical statistics**

Exercises 20 due Apr
27, 2016 at 23:59 UTC

Solved problems

Additional
theoretical
material

Problem Set 8

Problem Set 8 due Apr
27, 2016 at 23:59 UTC

Unit summary

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