

MITx: 6.041x Introduction to Probability - The Science of Uncertainty

■ Bookmarks

- Unit 0: Overview
- Entrance Survey
- Unit 1: Probability models and axioms
- Unit 2: Conditioning and independence
- Unit 3: Counting
- Unit 4: Discrete random variables
- Exam 1
- Unit 5: Continuous random variables

Unit 8: Limit theorems and classical statistics > Problem Set 8 > Problem 2 Vertical: Find the limits

■ Bookmark

Problem 2: Find the limits

(3/3 points)

Let S_n be the number of successes in n independent Bernoulli trials, where the probability of success for each trial is 1/2. Provide a numerical value, to a precision of 3 decimal places, for each of the following limits. You may want to refer to the standard normal table .

1.

$$\lim_{n o\infty}\mathbf{P}\left(rac{n}{2}-20\leq S_n\leqrac{n}{2}+20
ight)=$$

2.

$$\lim_{n o\infty}\mathbf{P}\left(rac{n}{2}-rac{n}{3}\leq S_n\leqrac{n}{2}+rac{n}{3}
ight)=$$

3.

- 4/22/2016
- Unit 6: Further topics on random variables
- Unit 7: Bayesian inference
- ▶ Exam 2
- ▼ Unit 8: Limit theorems and classical statistics

Unit overview

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

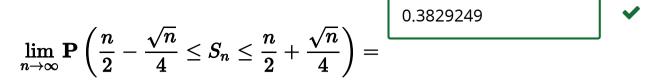
Exercises 18 due Apr 27, 2016 at 23:59 UTC

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



You have used 1 of 2 submissions

DISCUSSION

Click "Show Discussion" below to see discussions on this problem.

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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