



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



Bookmarks

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Unit 5: Continuous random variables > Problem Set 5 > Problem 2 Vertical: CDF

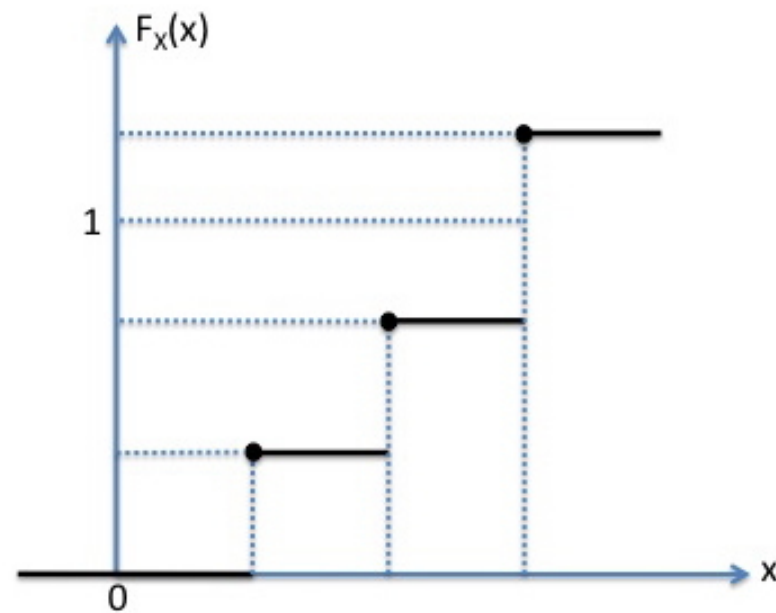
Bookmark

Problem 2: CDF

(4/4 points)


For each one of the following figures, identify if it is a valid CDF. The value of the CDF at points of discontinuity is indicated with a small solid circle.

1.




Unit overview


Lec. 8: Probability density functions

Exercises 8 due Mar 18, 2016 at 23:59 UTC 

Lec. 9: Conditioning on an event; Multiple r.v.'s

Exercises 9 due Mar 18, 2016 at 23:59 UTC 


Lec. 10: Conditioning on a random variable; Independence; Bayes' rule

Exercises 10 due Mar 18, 2016 at 23:59 UTC 

Standard normal table

Solved problems

Problem Set 5

Problem Set 5 due Mar 18, 2016 at 23:59 UTC 

Unit summary

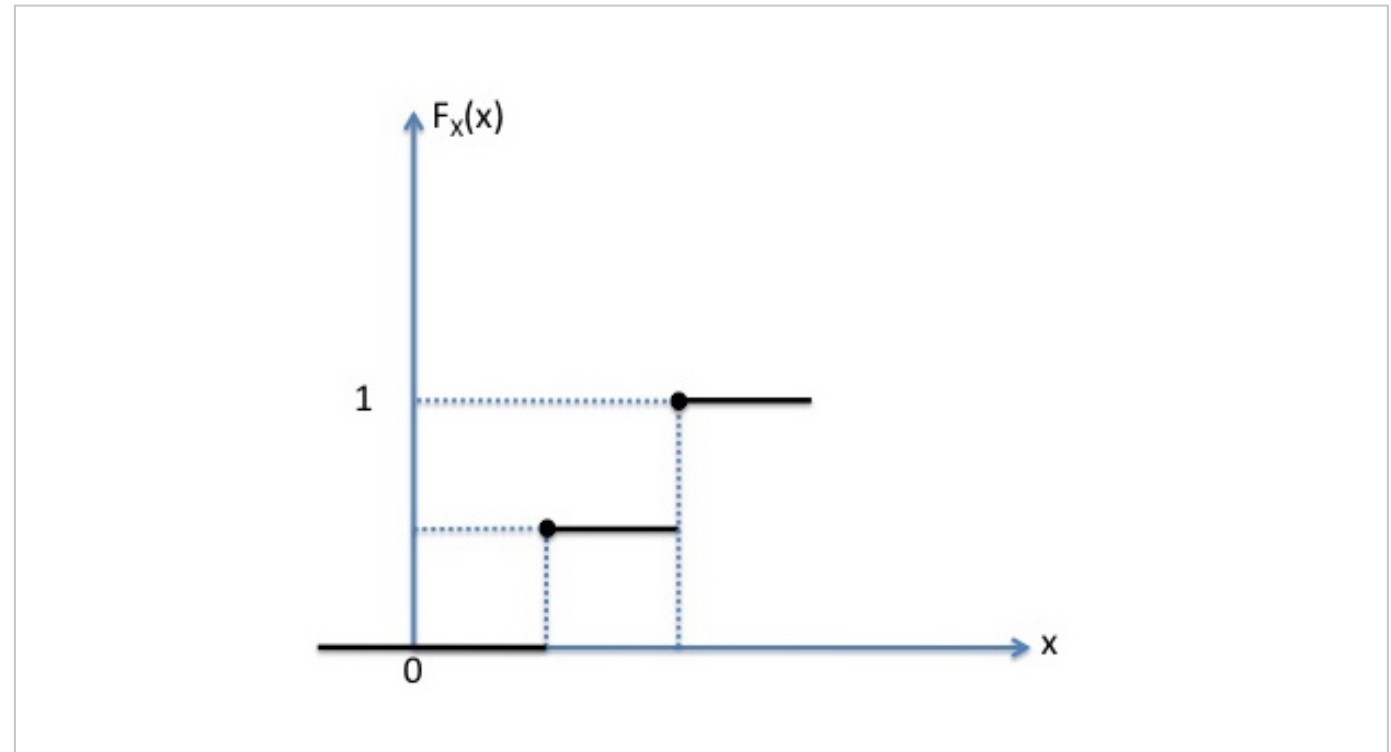
- ▶ Unit 6: Further topics on random variables
- ▶ Unit 7: Bayesian inference

No, it is not a valid CDF. ▼



Answer: No, it is not a valid CDF.

2.



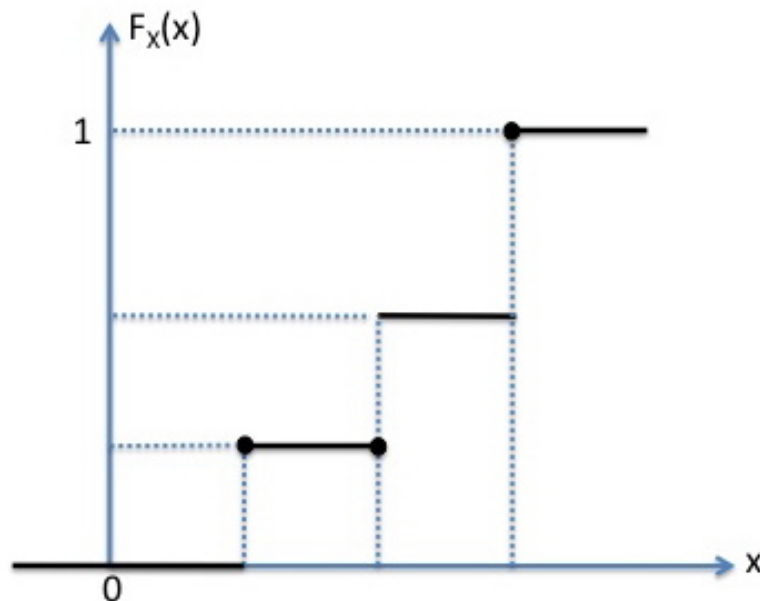
Yes, it is a valid CDF. ▼



Answer: Yes, it is a valid CDF.

3.

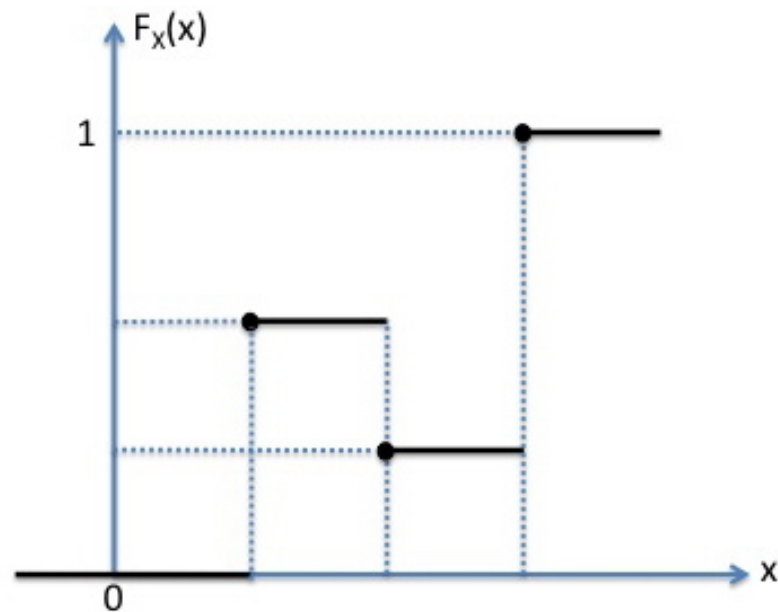
- ▶ Exam 2
- ▶ Unit 8: Limit theorems and classical statistics
- ▶ Unit 9: Bernoulli and Poisson processes
- ▶ Unit 10: Markov chains
- ▶ Exit Survey
- ▶ Final Exam



No, it is not a valid CDF. ▼

✓ Answer: No, it is not a valid CDF.

4.



No, it is not a valid CDF. ▼

✓ Answer: No, it is not a valid CDF.

Answer:

1. No, this is not a valid CDF because no valid CDF may take values greater than 1.
2. Yes, this is a valid CDF.
3. No, this is not a valid CDF because all valid CDFs are continuous from the right.
4. No, this is not a valid CDF because every valid CDF is monotonically nondecreasing.

You have used 1 of 1 submissions

DISCUSSION

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