

Statistics for Data Science -1

Continuous Random Variables-Uniform distribution

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Example: Application-question

You are to meet a friend at 2 p.m. However, while you are always exactly on time, your friend is always late and indeed will arrive at the meeting place at a time uniformly distributed between 2 and 3 p.m. Find the probability that you will have to wait

1. At least 30 minutes
2. Less than 15 minutes
3. Between 10 and 35 minutes
4. Less than 45 minutes

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3. Between 10 and 35 minutes $= P(10 \leq X \leq 35) = 25/60 = 5/12$
4. Less than 45 minutes $= P(X < 45) = 45/60 = 3/4$

Section summary

- ▶ Uniform distribution
- ▶ Standard uniform distribution
- ▶ applications