

Mathematics for Computer Science
MIT 6.042J/18.062J

Bounds on Deviation Markov Bound

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Albert R Meyer

May 10, 2013

Example: IQ

IQ measure was constructed so that

average IQ = 100. What fraction of the people can possibly have an $IQ \ge 300$? ...at most 1/3

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Albert R Meyer,

10 2012

markov.2



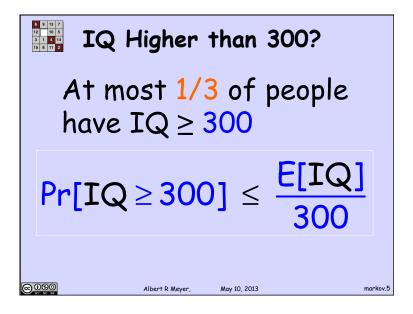
If more than 1/3 have IQ ≥ 300 , then avg $> (1/3) \cdot 300 = 100!$ —a contradiction

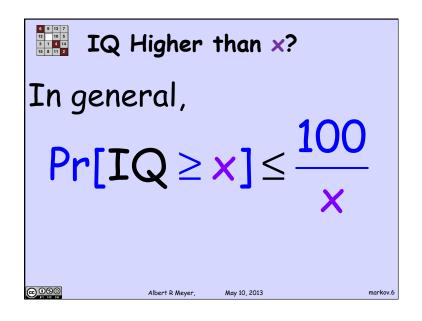
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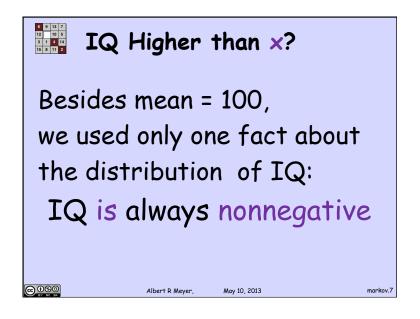
Albert R Meyer

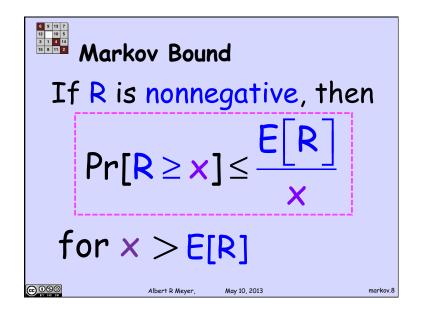
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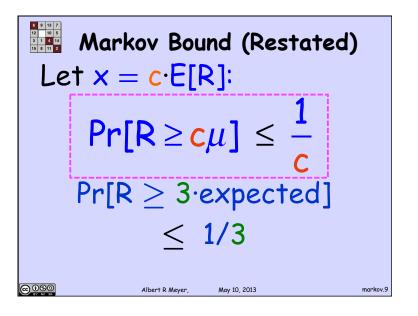
markov.3













Markov Bound

- · Weak
- Obvious
- ·Useful anyway

Albert R Meyer,

May 10, 2013

markov.10

