18.310C Pre-recitation Assignment 3

Reading: Download from the site the latest lecture notes on Chernoff bounds and go over them, focusing on Section 3. You will need this reading to complete the questions below and the writing assignment in homework 3.

Instructions: Hand in brief answers to the following questions **at the beginning of recitation.**

1. Draw a small diagram of the proof of Theorem 4, highlighting key steps and using arrows to show which statements follow directly from which other statements. Which parts of Section 3 aren't necessary for the proof? Why are they included?

2. In the equation preceding Equation (2), why has X been put in the exponent? How does this make the rest of the proof easier?

3. What parts of Section 3 were less clearly explained? What steps did you find confusing or poorly motivated?

4. What parts of Section 3 were most helpful for understanding the proof?

5. How could you improve Section 3 to make the proof of Theorem 4 easier to follow?

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