Approximation Algorithms

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- 1. Read the Syllabus.
- 2. Notion of an algorithm.
- 3. What needs to be analyzed in an algorithm? Measures.
- 4. Why analyze an algorithm (Predictability).
- 5. What is an approximation algorithm?
- 6. Measures of accuracy additive error, multiplicative error.
- 7. Reducibility.
- 8. Basic facts from Probability Theory.
 - (a) Sample Space.
 - (b) Probability space.
 - (c) Random Variables.
 - (d) Common distributions.
 - (e) Expectation, Variance.
 - (f) Linearity of expectation and partial linearity of variance.