## Combinatorial Optimization

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- 1. Linear Programming forms.
- 2. Extreme points.
- 3. Fourier-Motzkin elimination.
- 4. Infeasibility in linear systems of equalities (certificates).
- 5. Weyl's theorem.
- 6. Infeasibility in linear systems of inequalities.
- 7. Angle between two vectors. Determined through dot product.
- 8. Farkas' Lemma.
- 9. Linear Programming duality. (Columns in one, become rows in the other).
- 10. Example that describes its motivation.
- 11. Various forms.
- 12. Weak duality theorem.