

Lecture 18: Extremal graphs and Szemerédi's regularity lemma · 1MA020

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We discuss some basic notions of extremal graph theory, and give some nice proofs of Turán's theorem and related ideas. Then we introduce the Szemerédi regularity lemma, and use it to prove the triangle removal lemma, which we can use to prove Roth's theorem on arithmetic progressions of length three.

Exercises