

TAOCP 4A Notes

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1 Intro

Combinatorics: The art of arranging discrete things.

Five interesting properties:

- Existence
- Enumeration
- Construction
- Generation
- Optimization

1.1 Langford pairs

Given $2n$ numbers $1\ 1\ 2\ 2\ \dots\ n\ n$, arrange them in such a manner that, between two occurrences of k , there are exactly k numbers.