

HOMEWORK 10

- 1) (PHP) Each year, the Grievance Committee consists of three professors. How many professors must there be in the department to avoid having the same committee in a period of eleven years? (Note: the committees can overlap.)
- 2) (PHP) Let S be a subset of size $n + 1$ of the set $\{1, 2, 3, \dots, 2n\}$. Prove S contains a pair of relatively prime numbers. Give an exam of a set of size n for which this is false.
- 3) Book problem 10.6.
- 4) Repeat 10.6 with the function onto instead of one-one.

Book Problems [not collected]: 10.1, 10.3, 10.19, 10.24.