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## Hand-in-problems for Convex Polytopes VT13 Extra set of problems for PhD-students

Cooperation regarding the hand-in-problems is not permitted. You must have written your solution on your own. Any external source used must be cited.

## List of Hand-in problems

- 15) Exercise 8.9 (i) and (ii) in "Lectures on Polytopes".
- 16) Exercise 8.27 in "Lectures on Polytopes".
- 17) Let  $P = \Delta_d$  and f a generic linear function. Prove that  $\omega_f(P) \cup \{\hat{0}\}$  is the face poset of  $C_{d-1}$ , the (d-1)-cube. The notation  $\omega_f(P)$  used in class is equivalent to (but easier defined than)  $\Pi(P, f)$  of Definition 9.7 in the book.

Problems 15-17 are due 7/6.

Good Luck!!

Svante