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Hand-in-problems for Convex Polytopes VT13
Fourth set of problems

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

12) Let $f = (1, 13, 38, 50, 25)$.
  a) Is f the f-vector of a simplicial complex?
  b) Is f the f-vector of a shellable simplicial complex?
  c) Is f the f-vector of a simplicial polytope?

13) Exercise 8.28 in Lectures on Polytopes.

14) Give a characterization of all cd-index possible for
a) 2-polytopes
b) 3-polytopes
(if you missed the lecture giving the definition of the cd-index, you may look at
the first few pages of the article: "Flag f-vectors and the cd-index" by Richard
Stanley, Math. Z. 216, pp 483–499 (1994).)

  Problems 12-14 are **due 17/5**

Good Luck!!

Svante