Read chapter 33 in introduction to algorithms 3rd edition

Answer questions 33.1-3

pseudo code:

Cross\_product\_list = empty group

insert value 0 into list

calculate cross product of every vector (p0,pi) with (p0,p1) and place in Cross\_product\_list, i>=2.

In case of similar degress and different sizes D.C..

Sort the list from min to max using megresort, keeping the sorted indices.

Return indices

33.3-6

pseudo code:

Sort sequence p1...pn left to right using vertical sweeping line, breaking ties by placing lower values of y first.

Initialize C(3) with p1,p2,p3

for i=4 to n:

C(i) = C(i-1)

find topmost-right point p’ (that p’pi does not intersect C(i-1))

find lowest-right point p’’ (that p’’pi does not intersect C(i-1))

delete all points between p’ and p’’ from C(i)

add pi to C(i)

return C(i)

33.4-3

There is only one difference – in the combine 2 part. Considering manhattan distances – points in the two central squares can also exist and we add them. Thus 9 points needed to be checked instead of 7. but the algorithm will run in the same time.