Exercise for the lecture

## Algorithms for Radio Networks

## Winter 2011/12

Sheet 3

## EXERCISE 3:



1. Draw the Voronoi graph and the corresponding interference graph (the Delaunay graph) for the map section of Luebeck depicted above. Use the black marks, denoting the locations of churches in Luebeck, as the point set for your graph.
2. Apply the approximation algorithm from the lecture to find an upper bound for the graph coloring problem.
3. Can a 4 -clique exist in the Delaunay graph? Can the graph be 3-colored?
4. Can the graph be 4-colored?
