

# Homework 6

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Math 282 Computational Geometry  
due 5:00pm on Friday, January 20

Solve the following problems from the textbook, and write your solutions clearly and neatly. Make sure to explain your reasoning and provide mathematical details that support your answers. For a few tips on writing solutions, see [this helpful guide for mathematical writing](#).

These exercises are for everyone, regardless of whether or not you are taking this course for CS elective credit.

You may write or type your solutions electronically, or write them on paper and scan/photograph them. If you photograph your papers, please use a scanning app to produce a single PDF file containing your solutions. Upload your written solutions to the [Homework 6](#) assignment on Moodle.

1. Exercise 3.55 — *Hint*: re-read the proof of Thales' Theorem on pages 83–84.
2. Exercise 3.56
3. Exercise 4.4
4. Exercise 4.7
5. Exercise 4.8
6. Exercise 4.14
7. Exercise 4.15
8. Exercise 4.17 — Describe how you would modify the incremental algorithm to handle a new site  $p$  in an unbounded Voronoi region.