Homework 2 - due Wed. Feb. 12th
High-Dimensional Approximation, Probability, and Statistical Learning

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Homework Policies
As in the first homework set.

Assignment
Study/review Chapter 1 of R. Verhynin’s High-Dimensional Probability lectures notes/book.

Exercises
The exercises below are from the Foundations of Data Science lecture notes/book by Kannan et al.; please note that there are different versions of these notes available on the web: the ones I am referring to are the ones linked at on the section of my webpage on this course (linked at just above where you downloaded the homework).

Exercise 1 (20 pts). Exercise 2.28 on page 35.
Exercise 2 (25 pts). Exercise 2.32 on page 35. Also: consider more than 200 points (e.g. 2000), as well as study how this changes with the dimension $d$.
The exercises below are from the High Dimensional Probability lecture notes/book by R. Vershynin.
Exercise 4 (30 pts). Exercise 2.2.8 on page 17, “Boosting randomized algorithms”.
