# Problem Set 1 

CPSC 689 Randomized Algorithms
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The assignment is due next Thursday, before class.

## Solve

1. Exercise 2.5 in the lecture notes.
2. Exercise 2.6 in the lecture notes.
3. Exercise 1.11 in the textbook, part (a) only. Note that the formula should read

$$
\sum_{k=0}^{\lfloor n / 2\rfloor}\binom{n}{2 k} p^{2 k}(1-p)^{n-2 k}
$$

4. Exercise 1.13 in the textbook.
5. Exercise 1.22 in the textbook.

Read Chapter 1 in the textbook, and chapters 1 and 2 in the lecture notes.
Typeset your solution in $\mathrm{EA}_{\mathrm{E}} \mathrm{X}$ or write very neatly!

