Homework due Sep 5 Fri in class. Problems with \* are recommended but not required.

- Reading: Textbook<sup>1</sup> Chapter 1.2.
- Hand-in Problems:
  - 1. Textbook Chapter 1, Exercises 6, 8, 10, 14, 16, 18 (a), 20.
  - 2. Compute  $\int_0^\infty x^2 e^{-x} dx$ . Show all steps. Hint: use integration by parts, and you can use result of  $\int_0^\infty x e^{-x} dx$  (we have reviewed in lecture).
- Not hand-in Problems: (choose one from the following two sets)
  - Textbook Chapter 1, Exercises 7, 9, 15, 17 (a), (b), 23, 25\*, 27, 28\*, 31\*.
  - 2. SOA/CAS Exam P/1 Sample Questions<sup>2</sup>, Questions 1–10.

 $<sup>^{1}</sup>$ Introduction to Probability, Second Revised Edition, Grinstead and Snell. See textbook website for solutions of odd-number exercises.

<sup>&</sup>lt;sup>2</sup>SOA/CAS Exam P/1 Sample Questions. See course website for samples and solutions.