HW 1

From the Textbook

Questions 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, and 1.8

- 7 out of 8 Question (for Undergraduates)
- All Questions (for Graduates)

Extra Question

Follow the example we had in the classroom, find the $E(X)$ and $Var(X)$ based on (i) equations (2.1) and (2.2), and (ii) simulation for the following cases. Does (i) and (ii) give you the same result?

(a) $X \sim \chi^2(\nu = N + 1)$, where $N \sim Poisson(\lambda)$.

(b) (Only for Graduate Students) $X \sim Binomial(n = Y, p = P)$, where $Y \sim Poisson(\lambda)$ and $P \sim Beta(\alpha, \beta)$.