## 1 Former exam problems

Problem~1~on~2002~Mai~exam~http://www.math.ntnu.no/~mettela/TMA4265V2008/eksamen/eksMai02e.pdf

## 2 Exercises from the book

Chapter 5: 2, 4, 34, 42

## 3 Exercise 1

Show that for a Poisson process  $N = \{N(t), t \ge 0\}$  the following statement is valid:

$$P(N(s) = k \mid N(t) = n) = \binom{n}{k} \left(\frac{s}{t}\right)^k \left(1 - \frac{s}{t}\right)^{n-k}, \quad \text{for } s < t$$