

COMP406, Simulation and Modeling
HW-6 Due Dec. 21 2014

1. Solve problem 8.7 in the book
2. Give the inverse-transform for generating each of the following densities.

(a)

$$f(x) = \begin{cases} \frac{3x^2}{2} & \text{if } -1 \leq x \leq 1 \\ 0 & \text{if } otherwise \end{cases}$$

(b) For $0 < a < \frac{1}{2}$,

$$f(x) = \begin{cases} \frac{x}{a(1-a)} & \text{if } 0 \leq x \leq a \\ \frac{1}{(1-a)} & \text{if } a \leq x \leq 1-a \\ \frac{1-x}{a(1-a)} & \text{if } 1-a \leq x \leq 1 \\ 0 & \text{if } otherwise \end{cases}$$