

Homework 4.3

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Exercise 5.34 $9(1-x)^8$
 $9x^8$
 x_5

Exercise 5.36 (a) WOLG let X_1 be the min (X_1, X_2, X_3)

$$\begin{aligned}
 P(T \leq l) &= P(x_1 \leq l) = 1 - P(x_1 \geq l) \\
 &= 1 - P(x_i \geq l)^3 \\
 &= 1 - e^{-l/2}
 \end{aligned}$$

Exercise 5.36 (b) WOLG let X_1 be the max of (x_1, x_2, X_3)
 $P(T \leq l) = P(x_1 \leq l)$
 $= (1 - e^{-l/6})^3$