Homework 11

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Due Tuesday 4/28 at 11:59p on Gradescope

Graded problems

- Exercises 2.27, 2.28, 2.31, 2.52[1]

- Additional problem: for any integer $n > 0$ and real $t > 0$, let $U_1, \cdots, U_n$ be independent *uniform* random variables on $[0, t]$. Let $V_n = \max(U_1, \cdots, U_n)$.

  (a) Compute $P(V_n \leqslant s)$ for $0 \leqslant s \leqslant t$.

  (b) Find EV_n.

Suggested problems Exercises 2.30, 2.32, 2.36.

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[1]You may find it useful to do the additional problem first.