

Exercice given at the end of Lecture 4.

If τ is a tree, denote by $\lambda(\tau)$ the number of leaves of τ .

If $n \geq 1$ is an integer, set

$$L_n = \{\tau; \tau \text{ is a plane rooted tree that has } n \text{ leaves and no vertex has exactly one child}\}.$$

Find an offspring distribution μ on the nonnegative integers such that a random tree chosen uniformly at random in the set L_n has law $\mathbb{P}_\mu(\cdot \mid \lambda(\tau) = n)$.