FIN 971: PS5

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Optimal static labor demand:

$$\begin{aligned} l(k_t, z_t; w_t) &= \arg\max_{l \geq 0} \{A \exp(z_t) k_t^{\alpha_k} l_t^{\alpha_l} - w_t l_t - f_p\} \\ \implies A \exp(z_t) \alpha_l k_t^{\alpha_k} l_t^{\alpha_l - 1} &= w_t \\ l_t &= \left(\frac{w_t}{A \exp(z_t) \alpha_l k_t^{\alpha_k}} \right)^{\frac{1}{\alpha_l - 1}} \end{aligned}$$