\[ G(t) = 0 = G(t) \]

Why?

Rolle's Thm: \[ \exists \, \xi \in [a, b] \text{ s.t. } G'(\xi) = 0 \]

We have \[ G'(t) \ni 0 \]

\[ G'(t) = e^{\iota x}(t) - \epsilon t \quad \text{for } t \in [a, b] \]

Why?

\[ e(t) := \frac{g(t) - \psi(t)}{\iota x} \quad \text{Simpson} \]

\[ a(t) = \int_t^b ... + \int_t^{t+\iota x} ... \quad k \in [-t, t] \]

\[ a(t) = F(t) + F(t) \]

\[ a(t) = \frac{1}{3} [F(t) + 4F(t) + F(t)] \]

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\[ a(t) = \frac{1}{3} [F(t) + 4F(t) + F(t)] \]
\[ G'(\bar{x}) = \frac{\bar{y}}{2} \left[ \frac{d}{d\bar{x}} F^{(1)}(\bar{x}) \right] \bigg|_{\bar{x} = \bar{x}} - \frac{1}{2} \frac{df}{d\bar{x}} \bigg|_{\bar{x} = \bar{x}}^{\bar{x}} \]

Since \( E_y > 0 \) only if \( \bar{x} \in [0, \bar{x}] \) [Prove]

Solve for \( \bar{x} \):

\[ \bar{x} = \frac{1}{\lambda} \int_{0}^{\bar{x}} f''(y) \, dy \]

HW: Also rel. behv. \( y \) and \( \bar{x} \).

Thm. p. 12-2