

$$L_0(x) = 1$$

$$L_1(x) = 1 - x$$

$$L_2(x) = x^2 - 4x + 2$$

SHOW

$$\int_0^\infty \{L_i\} e^{-x} dx = 0$$

$$\dots \rightarrow \lim_{b \rightarrow \infty} [-e^{-b} + 1]$$

$$\int_0^\infty e^{-x} dx = \lim_{b \rightarrow \infty} \int_0^b e^{-x} dx$$

$$= - \int_x^b e^u du \quad v = -x, du = -dx$$

$$= -e^u \Big|_x^b = -e^{-x} \Big|_0^b = \dots$$

$$\dots = -e^{-b} - (-e^0) = -e^{-b} + 1 \rightarrow \dots$$

12:00
9:54

29 AM 10 PM

WATCH 4 CLAIMS (MFD)