Problem 2.77 In response to a step voltage, the voltage waveform shown in Fig. P2.77 was observed at the sending end of a lossless transmission line with $R_g = 50\Omega$, $Z_0 = 50\ \Omega$, and $\varepsilon_r = 2.25$. Determine the following:

(a) The generator voltage.
(b) The length of the line.
(c) The load impedance.

![Voltage waveform](image.png)

**Figure P2.77:** Voltage waveform for Problems 2.77 and 2.79.