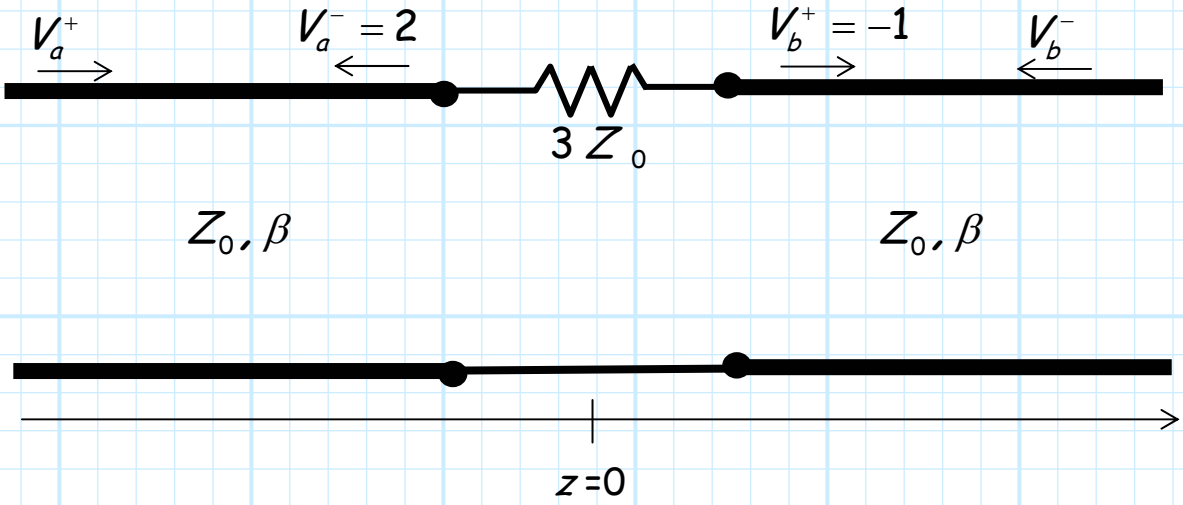
Special Problem 2.3-9

Consider the transmission line circuit below:



It is known that the **voltage** along the transmission lines is:

$$V(z) = \begin{cases} V_a^+ e^{-j\beta z} + 2e^{+j\beta z} & \text{for } z < 0 \\ -1e^{-j\beta z} + V_b^- e^{+j\beta z} & \text{for } z > 0 \end{cases}$$

The length of the resistor is **very** small ($\ll \lambda$).

Determine the values of **constants** V_a^+ and V_b^-