Special Problem 4.2-5

The voltage along the transmission line below is described as:

\[ V(z) = V_0^+ e^{-j\beta z} + V_0^- e^{+j\beta z} \]

Using the definition of admittance parameters, evaluate this 2-port device and find explicitly the values \( Y_{11} \) and \( Y_{21} \).

Hint: Use your transmission line knowledge to determine the required voltages and currents at each port.