Special Problem 2.3-17

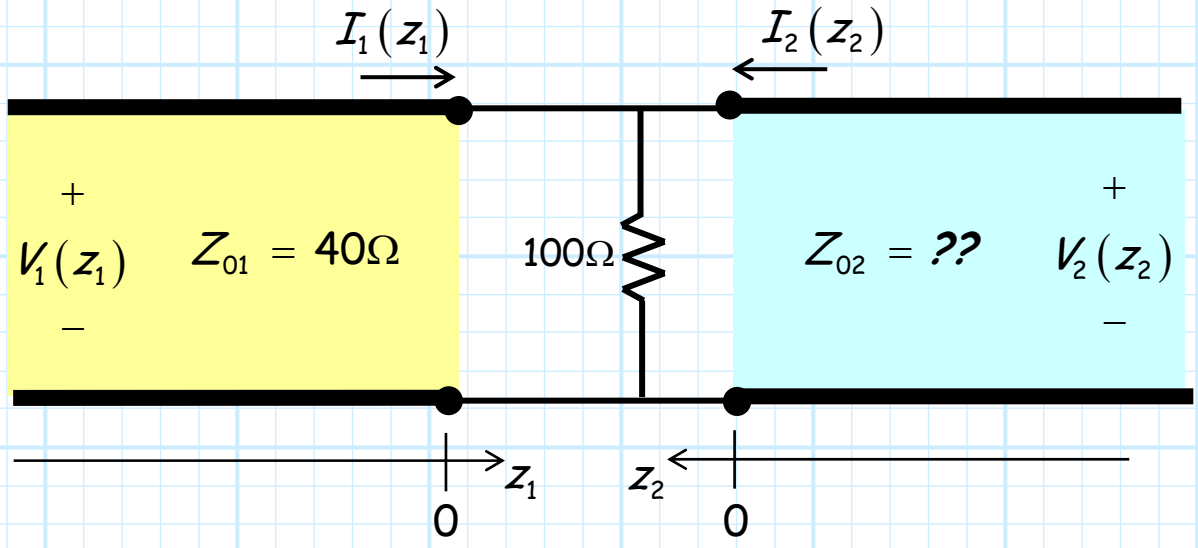
Carefully consider the **voltages** on the two transmission lines below:

$$V_1(z_1) = 3.0\,e^{-j\beta z_1} - 1.0\,e^{+j\beta z_1} \quad V$$

$$V_2(z_2) = A\,e^{+j\beta z_2} \quad V$$

where A is an **unknown** constant.

The **characteristic impedance** of the second transmission line is also unknown.



Apply **boundary conditions** to determine the values of unknown constant A **and** characteristic impedance Z_{02}.