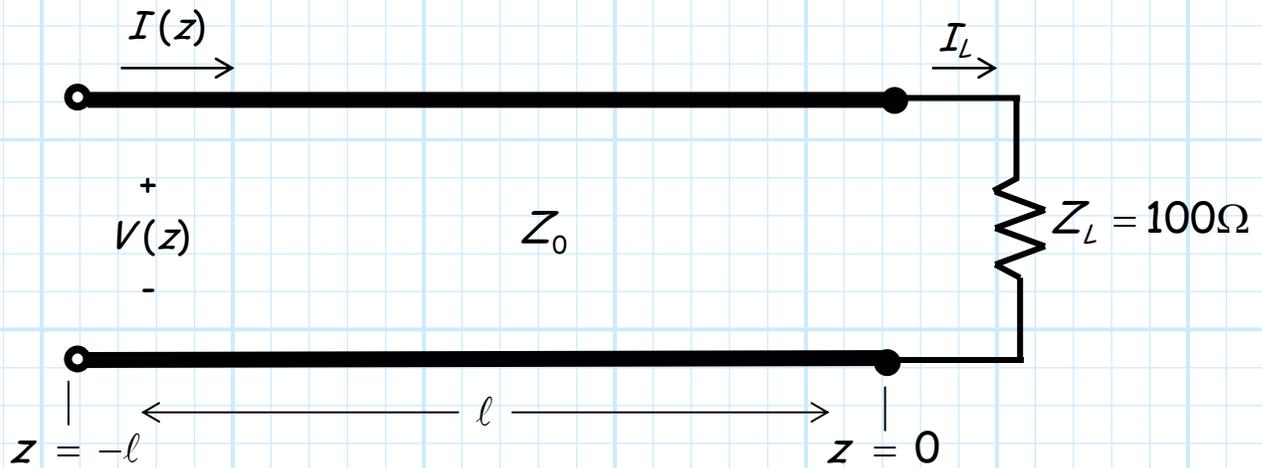


### Special Problem 2.3-13

Consider a terminated, lossless transmission line:



At location  $z=0$ , the wave **reflected** from load  $Z_L$  has the value:

$$V^-(z=0) = j$$

The **current** through the load is:

$$I_L = j0.04 \text{ A}$$

Determine the **characteristic impedance** of the transmission line.