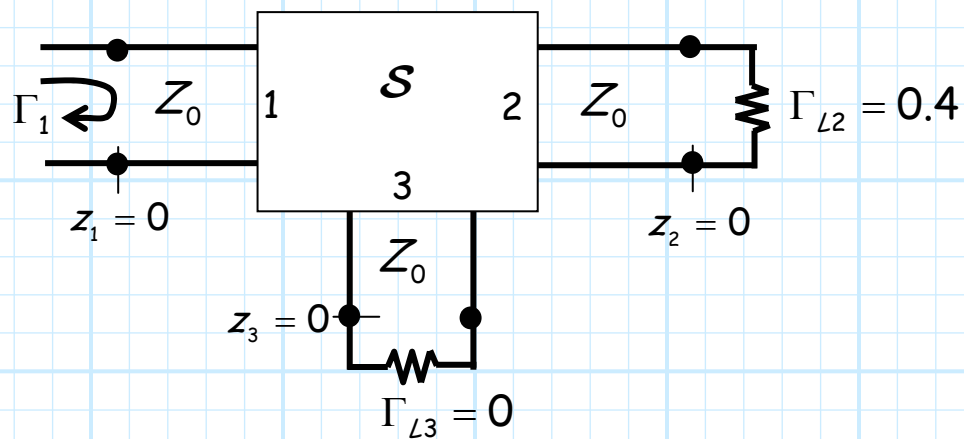


### Special Problem 4.3-3

Determine **algebraically** the value of the **reflection coefficient** looking into port 1 (i.e.,  $\Gamma_1 = V_{01}^- / V_{01}^+$ ). **Hint:**  $\Gamma_1 \neq S_{11}$ !



$$S = \begin{bmatrix} 0 & 0.5 & 0.3 \\ 0.2 & 0 & 0 \\ 0 & 0.1 & 0 \end{bmatrix}$$