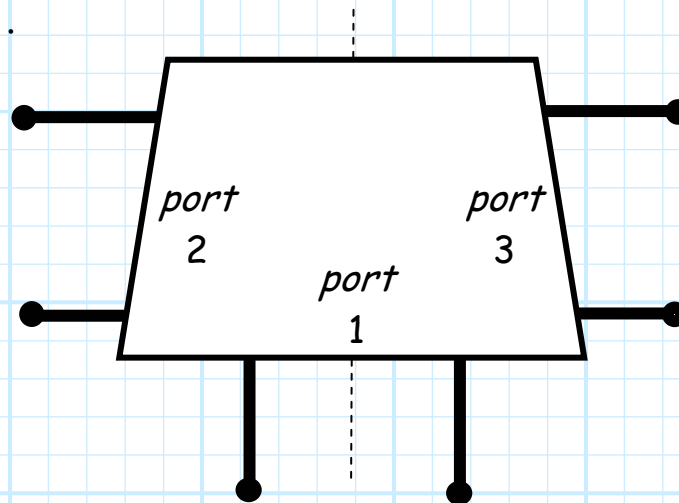
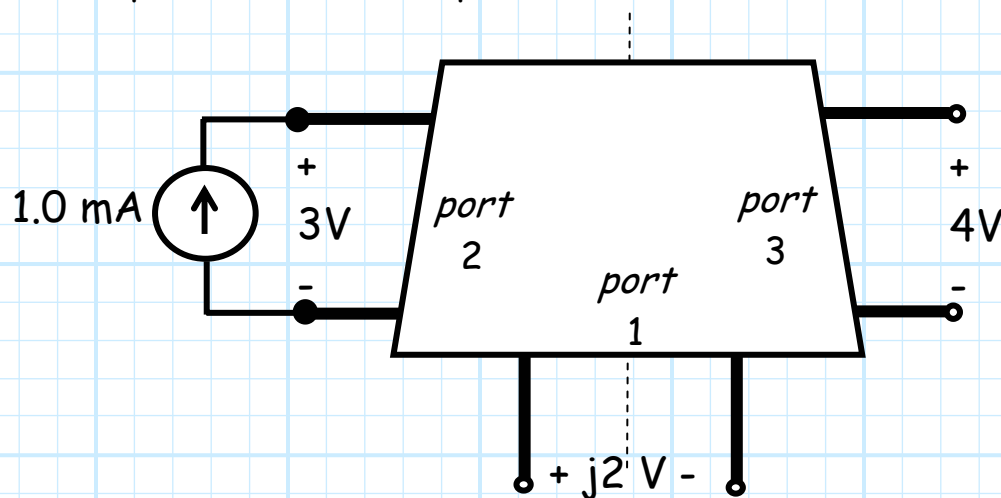


Special Problem 4.3-8

A **reciprocal** three port network exhibits a single plane of **reflection symmetry**, such that the circuit is **congruent** under the permutation $2 \rightarrow 3, 3 \rightarrow 2$.



We also know that when evaluated in the lab, we **measured** these values (note ports 1 and 3 are open circuited):



Using all this information, determine as many **elements** of network **impedance matrix** as you possibly can. Make sure you provide a **rational** for each answer.

Hint: You **cannot** determine **all** the impedance matrix elements with this information, but you can determine **most** of them!