**Special Problem 7.3-2**

1. Perform an **even-odd** mode analysis on the circuit below to determine its admittance matrix parameters $Y_{11}$, $Y_{21}$, $Y_{31}$, and $Y_{41}$.

**You must use even-odd mode analysis to find the answer!**

2. Note this circuit is symmetric and reciprocal. Use these facts (and only these facts!) to additionally determine all the **other** admittance matrix parameters that are **possible** to infer from the solutions (e.g., $Y_{11}$, $Y_{21}$, $Y_{31}$, and $Y_{41}$) found above.

Do **not analyze** the circuit to find these other values—use **only** the previous solutions (e.g., $Y_{11}$, $Y_{21}$, $Y_{31}$, and $Y_{41}$) and the properties of **symmetry** and **reciprocity**.

**Hint:** Note that **not all** of the admittance matrix parameters can be determined from $Y_{11}$, $Y_{21}$, $Y_{31}$, and $Y_{41}$. Determine **only** those that can be inferred from the circuit symmetry and reciprocity.