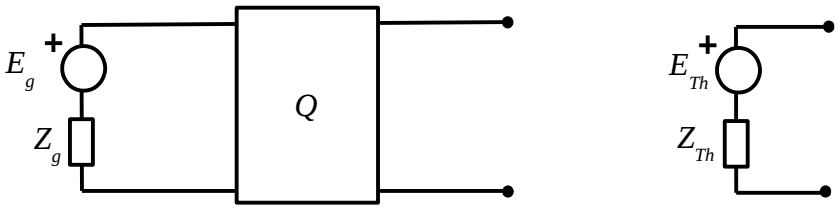
Proposed Exercise



1) Demonstrate that the equivalent Thevenin at the output gate of a two-port network, **Q**, connected at the input gate to a real source (E_g, Z_g) is:

$$Z_{Th} = \frac{DZ_g + B}{CZ_g + A},$$

$$E_{Th} = \frac{E_g}{CZ_g + A},$$

where *A*,*B*,*C*,*D* are the transmission parameters of **Q**.

2) If **Q** is symmetric, what would be the equivalent Thevenin at the input gate when the real source is connected at the output gate?