1. The two-ports shown have the same impedance parameters.
   (a) What are the element values of the bridged-T in terms of those of the lattices?
   (b) Is the bridged-T always realizable? What is the condition for it?

2. (a) Find the transfer function \( V_{out}/V_{in} \) of the first \( G_m-C \) stage shown.
   (b) Find the element values of the second stage to make \( V_{out}/V_{in} = -1/\text{sRC} \).

3. Find the transfer functions \( I_i/I_0 \), \( i = 1, 2, 3, 4 \) in the circuit shown.
   Hint: use inter-reciprocity.