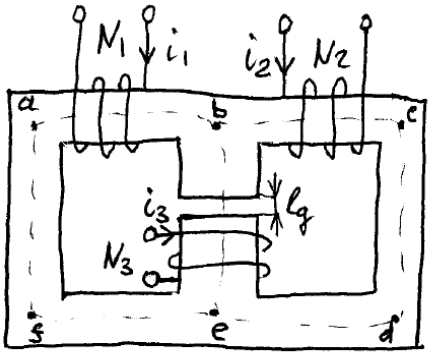
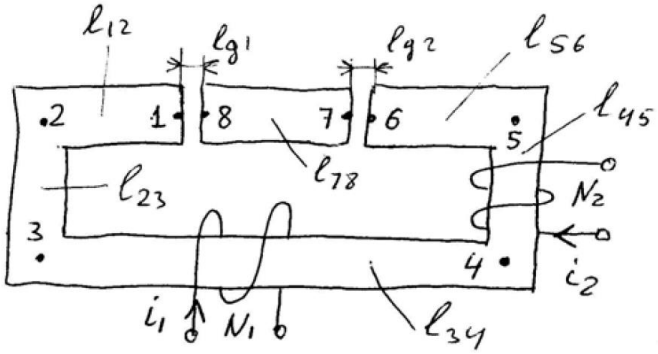
For the given magnetic system, draw the equivalent magnetic circuit and label mmf sources, reluctances, and fluxes (include directions).





Problem 1.2:

In the magnetic system of Fig. P1.2 two sides are thicker than the other two sides. The depth of the core is 10 cm, the relative permeability of the core $\mu_r = 2000$, the number of turns $N = 300$, and the current flowing through the coil is $i = 1$ A.

(a) Determine the flux in the core.

(b) Determine the flux densities in the parts of the core.

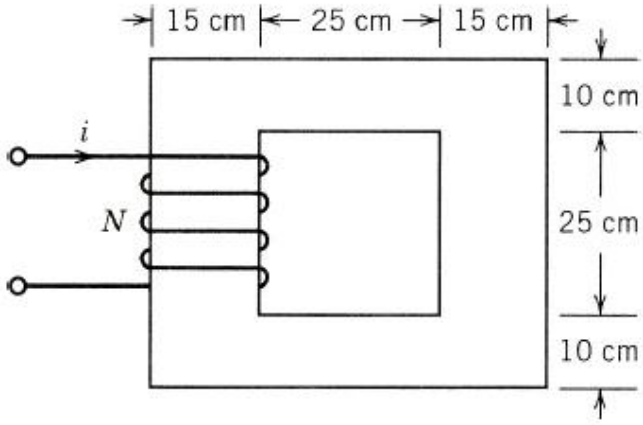


FIGURE P1.2