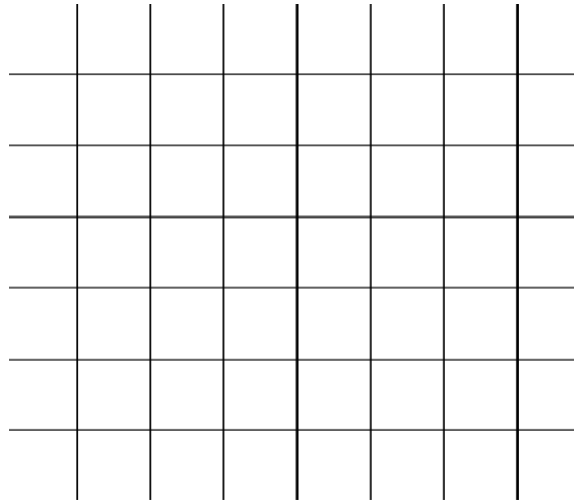


Drawing to accompany Exercise IV.4.5

The set Γ consists of all points on lines defined by equations of the form $x = a$ or $y = b$, where the constant terms a and b are integers.



The boundary of the unit square (outlined in red below) is contained in this set, and in fact this boundary is a retract of Γ . The first step in constructing the retraction back to the square boundary is to push all points (u, v) horizontally into the strip defined by $0 \leq u \leq 1$ as indicated in the middle picture below, and the second step is to push all points in the strip vertically into the boundary of the square as indicated in the right hand picture below.

