Assignment 5

A thin triangular slab (assume plane stress conditions) loaded by a horizontal force is allowed to move horizontally at node 1 and nodes 2 and 3 are fixed. At the constant initial temperature \mathcal{G}° and loading F=0, stress vanishes. If the slab is heated to the constant temperature $2\mathcal{G}^{\circ}$, what is the required force F to have $u_{X1}=0$? Material properties E, v, α and thickness t of the slab are constants.

