Name_____ Student number_____

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 $\vartheta°$ and loading $F = 0$, stress vanishes. If the slab is heated to the constant temperature $2\vartheta°$, what is the required force F to have $u_{X1} = 0$? Material properties E, ν, α and thickness t of the slab are constants.