Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Student number\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Assignment 5**

*X,x*

1

2

3

*L*

*L*

2

1

*F*

*Y,y*

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  and loading , stress vanishes. If the slab is heated to the constant temperature , what is the required force  to have ? Material properties , ,  and thickness  of the slab are constants.