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

1

*X*

*Y*

1

2

3

*L*

*L*

*x*

*y*

*g*

**Assignment 5**

A thin triangular slab of thickness *t* is loaded by its own weight. Derive the virtual work expression  of the structure and solve for the nodal displacements  and . Approximation is linear and elasticity parameters *E*,  and density  are constants. Assume plane stress conditions.