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

**Assignment 5**

*x*

*y*

*L*

*g*

*L*

A Kirchhoff plate of thickness *t* is loaded by its own weight. The plate is clamped on the edges where  or  and free on the other two edges. Material parameters *E*, , and *ρ* are constants. Determine the parameter  of the approximation . Use the principle of virtual work in form .