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

**Assignment 5**

*x,X*

*y*,*Y*

*H*

*L*

*p*

*E*, *ν*, *t*

The clamping of the plate shown allows displacement in direction. At the free edge, the plate is loaded by distributed force *p*. Determine the critical value  of the distributed force making the plate to buckle. Use the approximation  and assume that  and . Material parameters *E*,  and thickness of the plate *t* are constants.