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

**Assignment 4 (4p)**

*z*

*L*

*x*

*b*

Find the stress resultants , ,  and the displacement and rotation components , ,  of the plane cantilever beam of the figure according to the Timoshenko beam model. Problem parameters *E*, *G*, *A*,  and  are constants. Start with the generic equilibrium and constitutive equations for the beam model.