

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

### Problem 1

The structure shown consists of three elastic bars connected by joints and a point force acting on node 1. Young's modulus of the material is  $E$ . The cross-sectional area of bars 1 and 3 is  $A$  and that for bar 2 is  $\sqrt{2}A$ . Determine the displacement components  $u_{X1}$  and  $u_{Y1}$ .

