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

**Assignment 5**

External load  acting on the beam shown is constant. Determine displacement  and rotation  of the mid-point (node 2). Young’s modulus of the material and the second moments of area are *E* and , respectively. Use two beam elements of equal length.

*f*

*X*

*L*

*L*

1

2

3

1

2

*Z*