Remarks: See § 7.4, pages 514 to 520

Answer

a)

Member	Force	ΔL (mm)
1	-F	-2
2	0	0
3	0	0
4	$-\sqrt{2}\,F$	$-2\sqrt{2}$
5	0	0

b)

Joint	u_x (mm)	u_y (mm)
A	0	-6
B	0	0
C	-2	-6
D	0	-6

Assuming the direction of BC is fixed and removing the support at A:

Joint	u_x (mm)	u_y (mm)
A	6	6
B	0	0
C	4	0
D	0	0

Work out

Scale: 1 square = 1 mm