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*    Computer Software   *
*           for          *
*   STRUCTURAL ANALYSIS   *
*      Sixth Edition      *
*           by            *
*     Aslam Kassimali     *
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General Structural Data

Project Title : EWCE 411 - SB / L1 / Ex2
Structure Type : Beam
Number of Joints : 4
Number of Members : 3
Number of Material Property Sets (E) : 1
Number of Cross-Sectional Property Sets : 2

Joint Coordinates

Joint No.	X Coordinate
1	0.0000E+00
2	8.0000E+00
3	1.8000E+01
4	3.4000E+01

Supports

Joint No.	Y Restraint	Rotational Restraint
1	Yes	Yes
3	Yes	No
4	Yes	Yes

Material Properties

Material No.	Modulus of Elasticity (E)	Co-efficient of Thermal Expansion
1	4.5000E+03	0.0000E+00

Cross-Sectional Properties

Property No.	Moment of Inertia
1	1.0000E+00
2	2.0000E+00

Member Data

Member No.	Beginning Joint	End Joint	Material No.	Cross-Sectional Property No.
1	1	2	1	2
2	2	3	1	2
3	3	4	1	1

Joint Loads

Joint No.	Y Force	Moment
2	-1.0000E+01	0.0000E+00

Member Loads

Member No.	Load Type	Load Intensity (w)
3	Uniform	4.000E+0

Support Displacements

Joint No.	Y Displacement	Rotation
1	-1.5000E-01	3.0000E-02
3	-2.0000E-01	0.0000E+00

********** End of Input Data **********

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* Results of Analysis *

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Joint Displacements

Joint No.	Y Translation	Rotation (Rad)
1	-1.5000E-01	3.0000E-02
2	-7.6941E-02	-3.0376E-03
3	-2.0000E-01	-2.6502E-02
4	0.0000E+00	0.0000E+00

Member End Forces in Local Coordinates

Member	Joint	Shear Force	Moment
1	1	7.3388E+00	6.6522E+01
	2	-7.3388E+00	-7.8122E+00
2	2	-2.6612E+00	7.8122E+00
	3	2.6612E+00	-3.4424E+01
3	3	2.6568E+01	3.4424E+01
	4	3.7432E+01	-1.2133E+02

Support Reactions

Joint No.	Y Force	Moment
1	7.3388E+00	6.6522E+01
3	2.9229E+01	0.0000E+00
4	3.7432E+01	-1.2133E+02

********** End of Analysis **********