

W 8 x 58 I = 228
 Unfactor'd loads
 +
 beam weight
 max deflect = .41"

```
*****
*   Computer Software   *
*       for             *
*   STRUCTURAL ANALYSIS *
*       Fourth Edition  *
*       by              *
*   Aslam Kassimali    *
*****
```

=====
 General Structural Data
 =====

Project Title : Beam
 Structure Type : Beam
 Number of Joints : 8
 Number of Members : 7
 Number of Material Property Sets (E) : 1
 Number of Cross-Sectional Property Sets : 1

=====
 Joint Coordinates
 =====

Joint No.	X Coordinate
1	0.0000E+00
2	1.4000E+01
3	3.8000E+01
4	6.2000E+01
5	8.6000E+01
6	1.1000E+02
7	1.3400E+02
8	1.5800E+02

=====
 Supports
 =====

Joint No.	Y Restraint	Rotational Restraint
1	Yes	No
8	Yes	No

=====
 Material Properties
 =====

Material No.	Modulus of Elasticity (E)	Co-efficient of Thermal Expansion
1	2.9000E+04	0.0000E+00

=====
 Cross-Sectional Properties
 =====

Property No.	Moment of Inertia
1	2.2800E+02

=====
 Member Data
 =====

Member No.	Beginning Joint	End Joint	Material No.	Cross-Sectional Property No.
1	1	2	1	1
2	2	3	1	1
3	3	4	1	1
4	4	5	1	1
5	5	6	1	1
6	6	7	1	1
7	7	8	1	1

=====
 Joint Loads
 =====

Joint No.	Y Force	Moment
2	-8.2000E+00	0.0000E+00
3	-8.2000E+00	0.0000E+00
4	-8.2000E+00	0.0000E+00
5	-8.2000E+00	0.0000E+00
6	-8.2000E+00	0.0000E+00
7	-8.2000E+00	0.0000E+00

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

 * Results of Analysis *

=====
 Joint Displacements
 =====

Joint No.	Y Translation	Rotation (Rad)
1	0.0000E+00	-8.4842E-03
2	-1.1697E-01	-8.0966E-03
3	-2.8908E-01	-5.9852E-03
4	-3.9460E-01	-2.6667E-03
5	-4.1314E-01	1.1446E-03
6	-3.4143E-01	4.7344E-03
7	-1.9338E-01	7.3882E-03
8	0.0000E+00	8.3919E-03

=====
 Member End Forces in Local Coordinates
 =====

Member	Joint	Shear Force	Moment
1	1	2.6156E+01	-4.1416E-03
	2	-2.6156E+01	3.6619E+02
2	2	1.7957E+01	-3.6620E+02
	3	-1.7957E+01	7.9716E+02
3	3	9.7570E+00	-7.9716E+02
	4	-9.7570E+00	1.0313E+03
4	4	1.5568E+00	-1.0313E+03
	5	-1.5568E+00	1.0687E+03
5	5	-6.6428E+00	-1.0687E+03
	6	6.6428E+00	9.0927E+02
6	6	-1.4843E+01	-9.0926E+02
	7	1.4843E+01	5.5303E+02
7	7	-2.3043E+01	-5.5303E+02
	8	2.3043E+01	-2.4928E-04

=====
 Support Reactions
 =====

Joint No.	Y Force	Moment
1	2.6156E+01	0.0000E+00
8	2.3043E+01	0.0000E+00

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