Displacements
Node 1
DX= 0.000000 millimeters DY= 0.000000 millimeters Dt= 0.000000 milliradians (X,Y)=(0.000,0.000)
Node 1a
DX= 0.000000 millimeters DY= -0.000130 millimeters Dt= -0.000894 milliradians (X,Y)=(0.250,0.000)
Node 4
DX= 0.000000 millimeters DY= -0.000383 millimeters Dt= -0.001021 milliradians (X,Y)=(0.500,0.000)
Node 4a
DX= 0.000000 millimeters DY= -0.000598 millimeters Dt= -0.000638 milliradians (X,Y)=(0.750,0.000)
Node 2
DX= 0.000000 millimeters DY= -0.000681 millimeters Dt= 0.000000 milliradians (X,Y)=(1.000,0.000)
Node 2a
DX= 0.000000 millimeters DY= -0.000598 millimeters Dt= 0.000638 milliradians (X,Y)=(1.250,0.000)
Node 5
DX= 0.000000 millimeters DY= -0.000383 millimeters Dt= 0.001021 milliradians (X,Y)=(1.500,0.000)
Node 5a
DX= 0.000000 millimeters DY= -0.000130 millimeters Dt= 0.000894 milliradians (X,Y)=(1.750,0.000)
Node 3
DX= 0.000000 millimeters DY= 0.000000 millimeters Dt= 0.000000 milliradians (X,Y)=(2.000,0.000)
Forces
Counterclockwise notation
Free body notation
Beam :2 connects nodes 1 and 1a
Beam forces
N1= -0.00 kN Q1= 30.00 kN M1= -10.00 kNm
N1a= 0.00 kN Q1a= 22.50 kN M1a= -3.44 kNm
Beam :3 connects nodes 1a and 4
Beam forces
N1a= -0.00 kN Q1a= 22.50 kN M1a= -3.44 kNm
N4= 0.00 kN Q4= 15.00 kN M4= 1.25 kNm
Beam :4 connects nodes 4 and 4a
Beam forces
N4= -0.00 kN Q4= 15.00 kN M4= 1.25 kNm
N4a= 0.00 kN Q4a= 7.50 kN M4a= 4.06 kNm
Beam :5 connects nodes 4a and 2
Beam forces
N4a= -0.00 kN Q4a= 7.50 kN M4a= 4.06 kNm
N2= 0.00 kN Q2= -0.00 kN M2= 5.00 kNm
Beam :6 connects nodes 2 and 2a
Beam forces
N2= -0.00 kN Q2= -0.00 kN M2= 5.00 kNm
N2a= 0.00 kN Q2a= -7.50 kN M2a= 4.06 kNm
Beam :7 connects nodes 2a and 5
Beam forces
N2a= -0.00 kN Q2a= -7.50 kN M2a= 4.06 kNm
N5= 0.00 kN Q5= -15.00 kN M5= 1.25 kNm
Beam :8 connects nodes 5 and 5a
Beam forces
N5= -0.00 kN Q5= -15.00 kN M5= 1.25 kNm
N5a= 0.00 kN Q5a= -22.50 kN M5a= -3.44 kNm
Beam :9 connects nodes 5a and 3
Beam forces
N5a= -0.00 kN Q5a= -22.50 kN M5a= -3.44 kNm