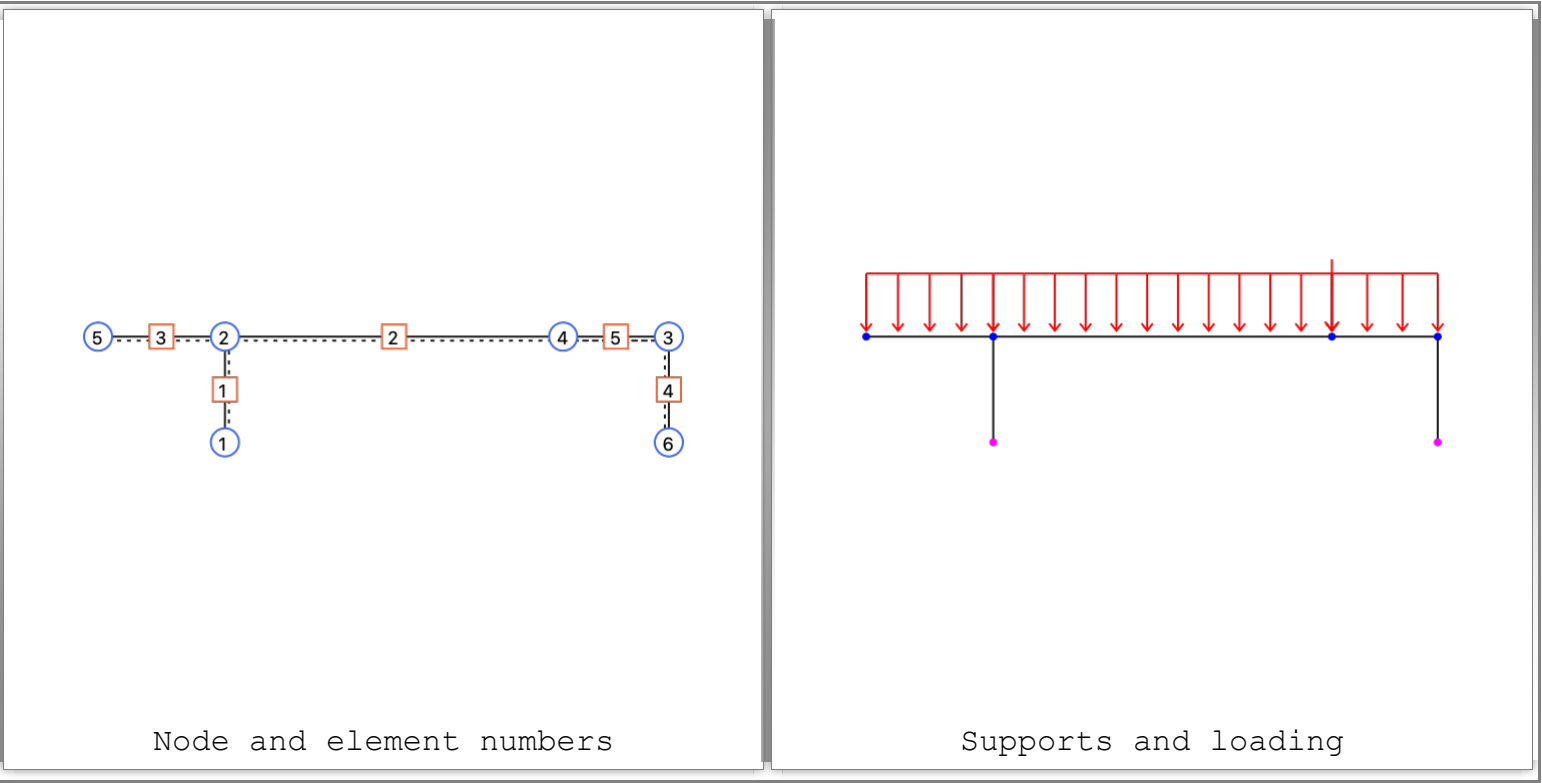


1 General Data



1.1 Nodes

Node No.	Coordinates [m]		Rotation [°]	Support or Spring		
	x	z	about Y	u_x [kN/m]	u_z [kN/m]	ϕ_y [kNm/rad]
1	-11	0		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2	-11	-5				
3	10	-5				
4	5	-5				
5	-17	-5				
6	10	0		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

1.2 Cross Sections

Section No.	Description	A [cm ²]	I [cm ⁴]	E [N/mm ²]	ρ [kg/m ³]	α_T [1/°C]

1	HE-A 300	112.528	18,291.003	210,000	7,850	1.2e-05
2	IPE 600	155.984	92,100.616	210,000	7,850	1.2e-05

1.3 Members

Member No.	Type	Nodes		Cross Section No.	Length
		Start	End		L[m]
1	Beam	1	2	1	5
2	Beam	2	4	2	16
3	Beam	5	2	2	6
4	Beam	3	6	1	5
5	Beam	4	3	2	5

1.4 External Loads

1.4.1 Forces

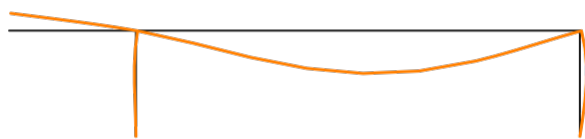
Force No.	Node No.	Force [kN]		Moment [kNm]
		P _x	P _z	M _y
1	4	0	35	0

1.4.2 Line Loads

Load No.	Member No.	Direction	Reference Length	Start Value [kN]	End Value [kN]
1	2	Local Z	True Length	7.5	7.5
2	3	Local Z	True Length	7.5	7.5
3	5	Local Z	True Length	7.5	7.5

2 Results

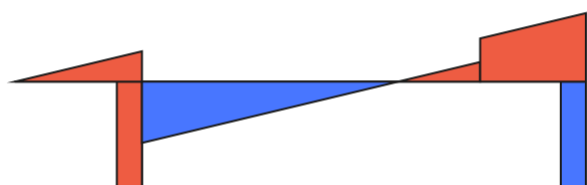
2.1 Deformation And Section Forces



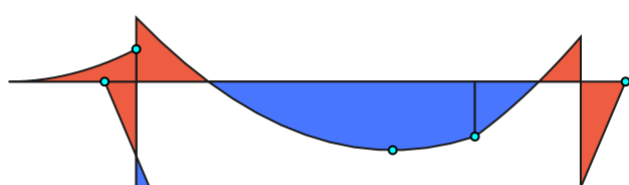
Deformation (x35.3747)



Normal Force N [kN]



Shear Force V [kN]



Bending Moment M [kNm]

2.1.1 Section Forces

Member No.	N_1 [kN]	N_2 [kN]	V_1 [kN]	V_2 [kN]	M_1 [kNm]	M_2 [kNm]	M_{\max} [kNm]	at [m]
1	-135.891	-135.891	-37.222	-37.222	55.033	-131.076	-131.076	5
2	-37.222	-37.222	90.891	-29.109	-266.076	228.185	284.672	12.119
3	0	0	0	-45	0	-135	-135	6
4	-101.609	-101.609	37.222	37.222	-186.109	-0	-186.109	0

5	-37.222	-37.222	-64.109	-101.609	228.185	-186.109	228.185	0
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2.1.2 Nodal Displacements

Node No.	Displacements [mm]			Rotation [mrad]
	u_x	u_z	$ u $	ϕ_y
1	0	0	0	0
2	2.279	-0.288	2.297	4.949
3	2.041	-0.215	2.052	-7.667
4	2.097	-40.644	40.698	-6.719
5	2.279	23.127	23.239	3.553
6	0	0	0	4.446

2.2 Reaction Forces

Force No.	Node No.	Support Force [kN]		Moment [kNm]
		P_x	P_z	M_y
1	1	37.222	135.891	55.033
2	6	-37.222	101.609	0