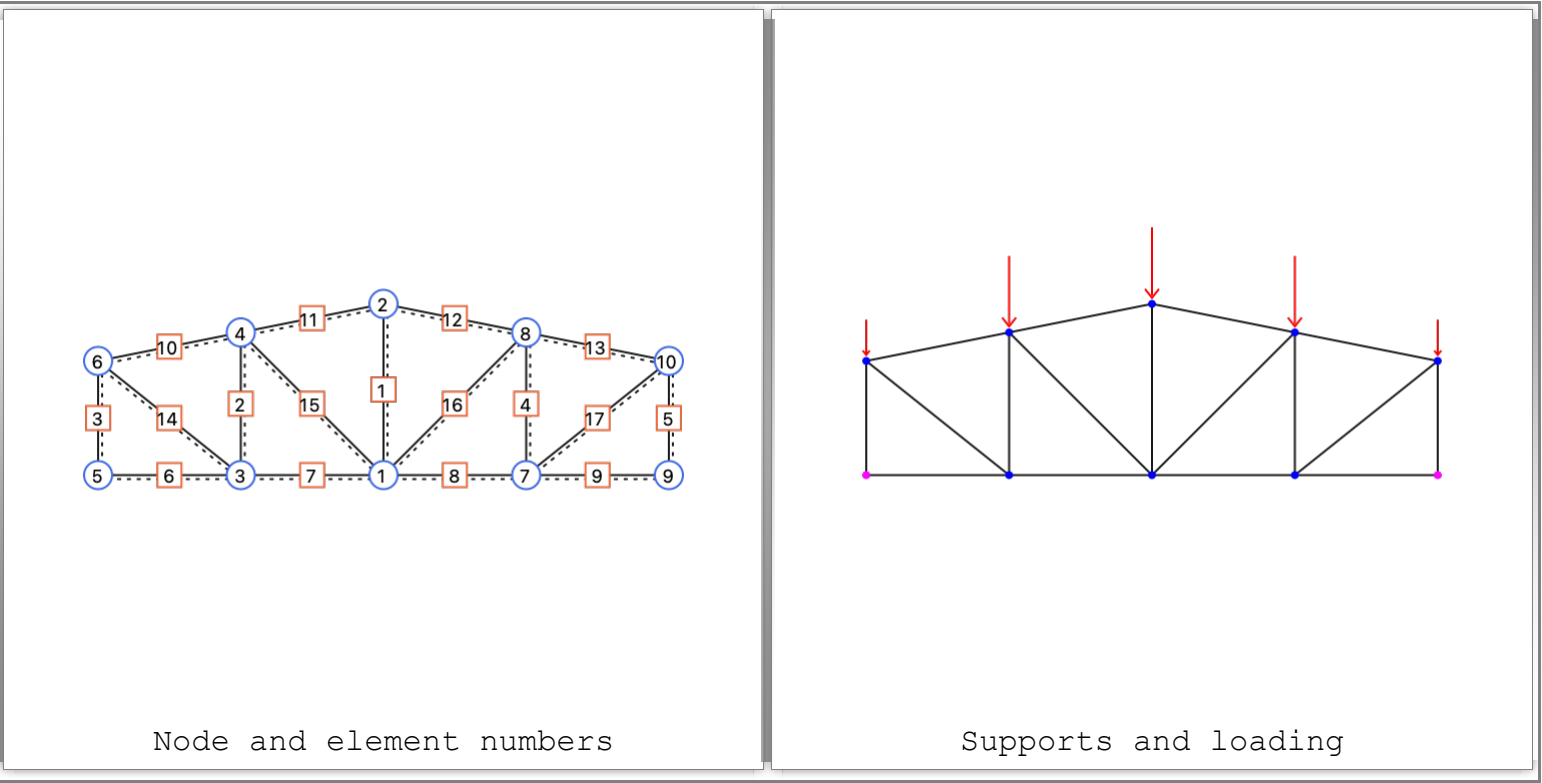


# 1 General Data



## 1.1 Nodes

Node No.	Coordinates [m]		Rotation [°]	Support or Spring		
	x	z	about Y	$u_x$ [kN/m]	$u_z$ [kN/m]	$\phi_y$ [kNm/rad]
1	0	0				
2	0	-3				
3	-2.5	0				
4	-2.5	-2.5				
5	-5	0		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	-5	-2				
7	2.5	0				
8	2.5	-2.5				
9	5	0		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10	5	-2				

1.2 Cross Sections

Section No.	Description	A [cm <sup>2</sup> ]	I [cm <sup>4</sup> ]	E [N/mm <sup>2</sup> ]	ρ [kg/m <sup>3</sup> ]	α <sub>T</sub> [1/°C]
1	Rectangular 100/100	100	833.333	11,600	7,850	1.2e-05

1.3 Members

Member No.	Type	Nodes		Cross Section No.	Length
		Start	End		L[m]
1	Truss	1	2	1	3
2	Truss	3	4	1	2.5
3	Truss	5	6	1	2
4	Truss	7	8	1	2.5
5	Truss	9	10	1	2
6	Truss	5	3	1	2.5
7	Truss	3	1	1	2.5
8	Truss	1	7	1	2.5
9	Truss	7	9	1	2.5
10	Truss	6	4	1	2.55
11	Truss	4	2	1	2.55
12	Truss	2	8	1	2.55
13	Truss	8	10	1	2.55
14	Truss	6	3	1	3.202
15	Truss	4	1	1	3.536
16	Truss	1	8	1	3.536
17	Truss	7	10	1	3.202

1.4 External Loads

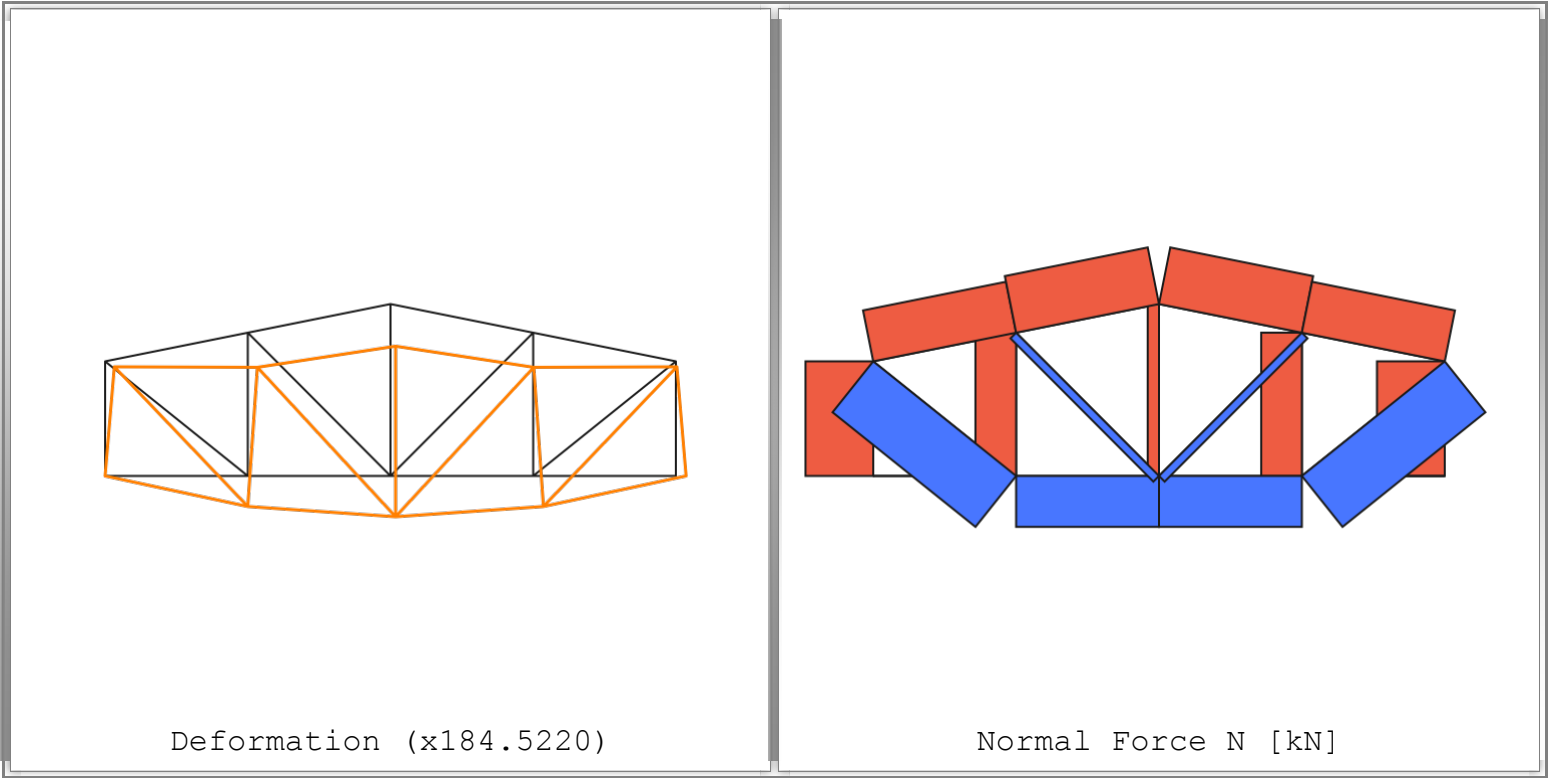
1.4.1 Forces

Force No.	Node No.	Force [kN]		Moment [kNm]
		P <sub>x</sub>	P <sub>z</sub>	M <sub>y</sub>

1	2	0	15	0
2	4	0	15	0
3	6	0	7.5	0
4	8	0	15	0
5	10	0	7.5	0

## 2 Results

### 2.1 Deformation And Section Forces



#### 2.1.1 Section Forces

Member No.	N <sub>1</sub> [kN]	N <sub>2</sub> [kN]
1	-5	-5
2	-18	-18
3	-30	-30
4	-18	-18
5	-30	-30

6	-0	-0
7	22.5	22.5
8	22.5	22.5
9	-0	-0
10	-22.946	-22.946
11	-25.495	-25.495
12	-25.495	-25.495
13	-22.946	-22.946
14	28.814	28.814
15	3.536	3.536
16	3.536	3.536
17	28.814	28.814

### 2.1.2 Nodal Displacements

Node No.	Displacements [mm]			Rotation [mrad]
	$u_x$	$u_z$	$ u $	$\phi_y$
1	0.485	-3.856	3.886	0
2	0.485	-3.985	4.015	0
3	-0	-2.887	2.887	0
4	0.914	-3.274	3.4	0
5	0	0	0	0
6	0.877	-0.517	1.018	0
7	0.97	-2.887	3.045	0
8	0.056	-3.274	3.275	0
9	0.97	0	0.97	0
10	0.093	-0.517	0.526	0

### 2.2 Reaction Forces

Force No.	Node No.	Support Force [kN]		Moment [kNm]
		$P_x$	$P_z$	$M_y$
1	5	0	30	0

2

9

-0

30

0