

Civil Engineering Calculator

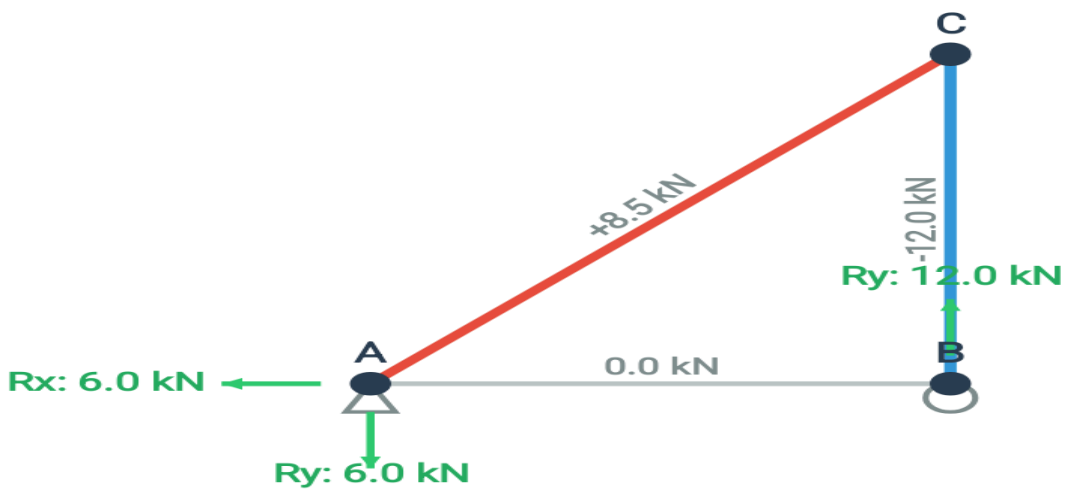
Truss Analysis - Calculation Report

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1. STRUCTURAL GEOMETRY & PROPERTIES

Nodes Count: **3 nodes**
Members Count: **3 members**
Young's Modulus (E): **200000.0 MPa**
Cross-Sectional Area (A): **1.0 mm²**

2. FORCE DISTRIBUTION DIAGRAM



Legend: RED = Tension | BLUE = Compression | GRAY = Zero-Force

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Truss Analysis - Calculation Report (Contd.)

3. MEMBER AXIAL FORCES

Sign Convention: Tension (+) = Stretching | Compression (-) = Shortening

Reactions: Positive Rx/Ry = Rightward/Upward | Negative Rx/Ry = Leftward/Downward

Member ID	Force (kN)	Type	Buckling Warning
M1 (A-B)	0.00	Zero-Force	—
M2 (B-C)	12.00	Compression	—
M3 (A-C)	8.49	Tension	—

4. SUPPORT REACTIONS

Node ID	Reaction Rx (kN)	Reaction Ry (kN)
Node A	6.00	6.00
Node B	0.00	12.00

* Disclaimer: For reference and estimation purposes only. Verify calculations with a licensed structural engineer.