

Consider the single-node truss shown below.

- Draw a free body diagram of joint C and write down the equilibrium equations for the joint. Show that the problem is statically indeterminate.
- Choose an appropriate set of redundant constraint force(s) from your FBD above.
- Write down the strain energy expression for the truss.
- Use Castigliano's method to determine the load carried by the three members of the truss. State whether each member is in tension or in compression.

