Structures I

Arch 314

Name 1 _____

Name 2 _____

Name 3 _____

# Graphic Statics

**Description**

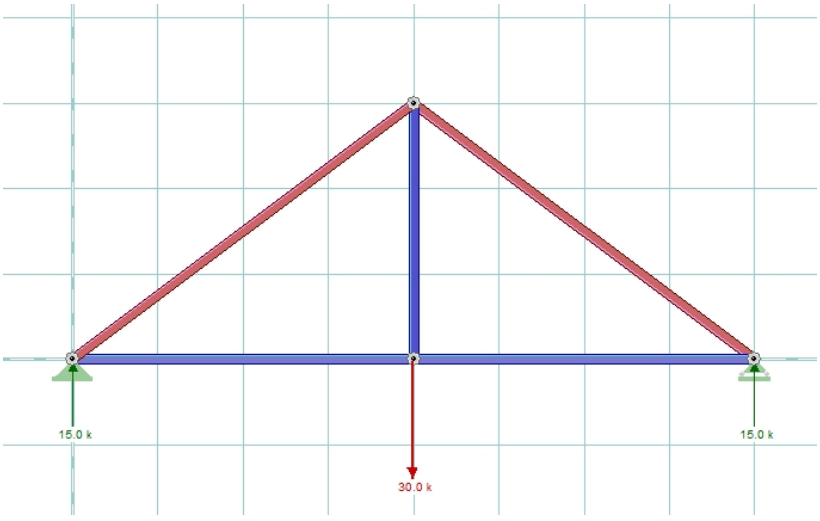
This project provides opportunity to explore the graphic method of truss analysis

**Goals**

To draw a graphic force diagram for a given truss.
To determine the member forces.

**Procedure**

1. Determine the end reactions for the given king post truss.
2. Label the external cells. (A, B, C)
3. Label the internal cells. (1, 2)
4. Draw the force vectors. (*AB, BC, CA*)
5. Draw vector *C1* through point C.
6. Draw vector *A1* through point A.
7. Label the intersection of *C1* and *A1* as point 1.
8. Draw vector *B2* through point B.
9. Draw vector *A2* through point A.
10. Label the intersection of B2 and A2 as point 2.
11. Draw vector *12* connecting points 1 and 2.
12. Measure each vector to determine the force in the member.
13. Record the force value next to the member on the truss drawing.



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