

### Practice Problem Set 3: Engineering Mechanics (NMEC101)

#### Analysis of Structures (Part 1)

Instruction: Figure numbers correspond to the problem numbers.

1. Using the method of joints determine the force in each member of the truss shown. State whether each member is in tension or compression.
2. Determine the force in each member of the Fink truss shown. State whether each member is in tension or compression.
3. For the given loading, determine (only through inspection) the zero-force members in the truss shown.
4. A parallel chord Pratt truss is loaded as shown. Determine the force in members CE, DE, and DF.
5. A roof truss is loaded as shown. Determine the force in members CE, DE, and EF.

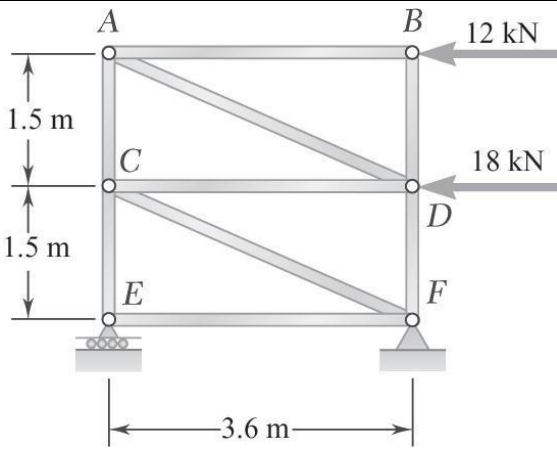


Fig. 1

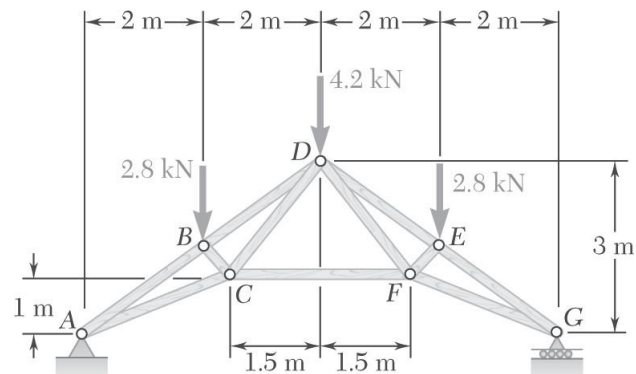


Fig. 2

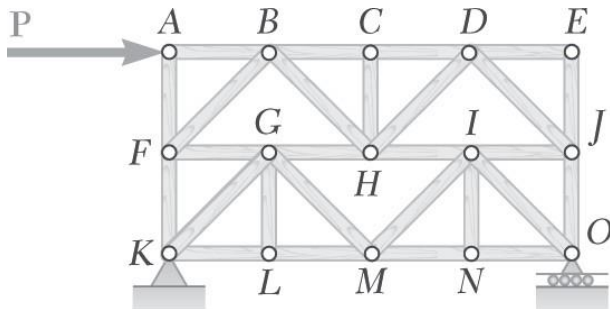


Fig. 3

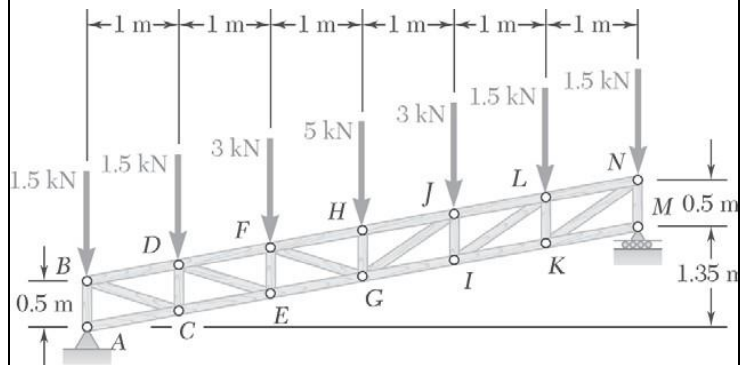


Fig. 4

