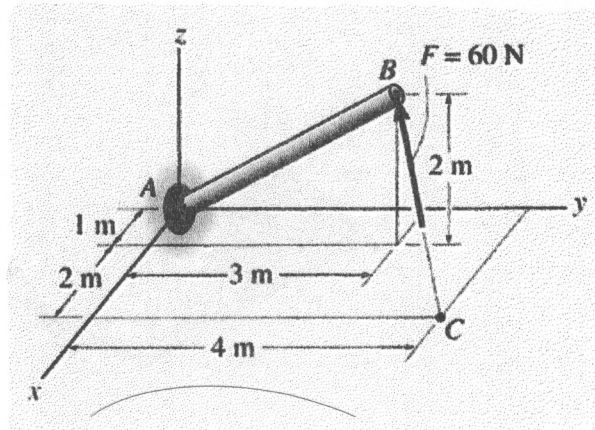


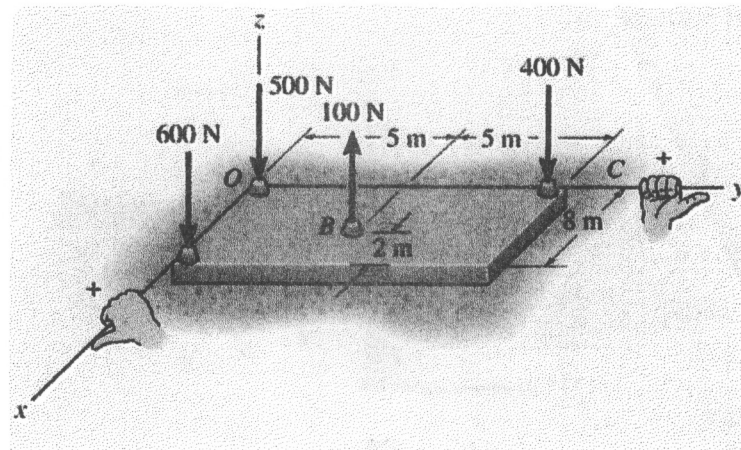
1. 15%

The pole in the figure is subjected to a 60 N force that is directed from C to B. Determine the magnitude of the moment created by this force about the support at A.



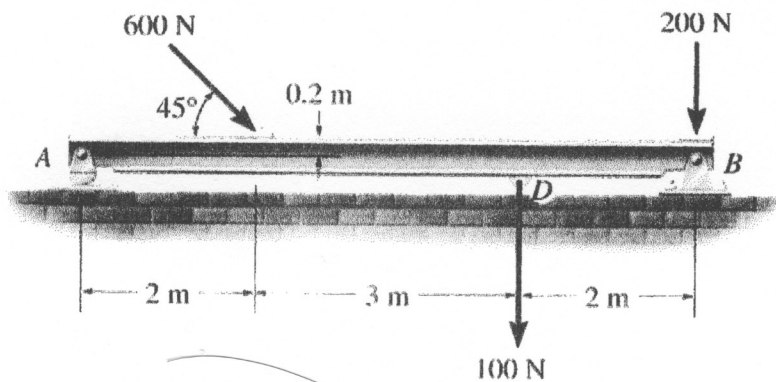
2. 15%

The slab in the figure is subjected to four parallel forces. Determine the magnitude and direction of a resultant force equivalent to the given force system and locate its point of application on the slab.



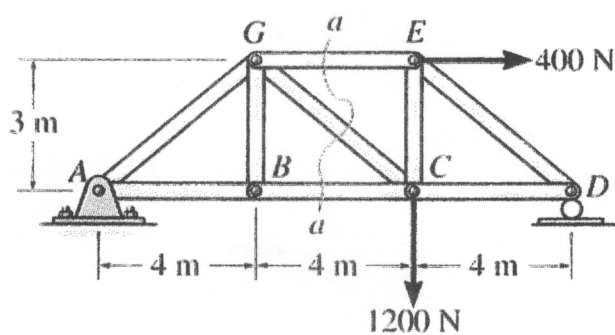
3. 15%

Determine the horizontal and vertical components of the reaction for the beam loaded as shown in the figure. Neglect the weight of the beam in the calculations.



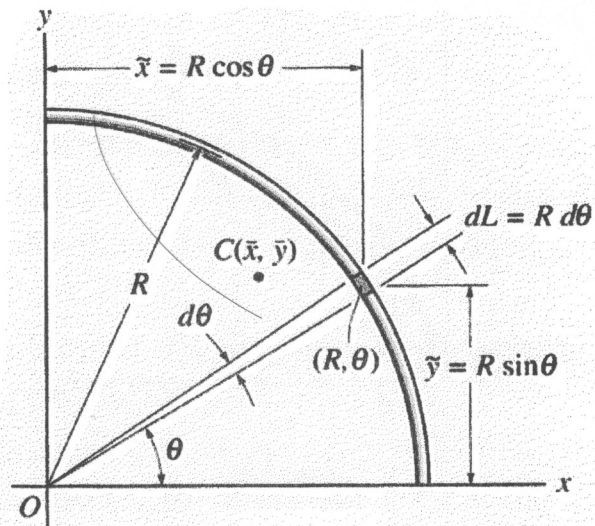
4. 15%

Determine the force in members GE, GC, and BC of the truss shown in the figure. Indicate whether the members are in tension or compression.



5. 20%

Locate the centroid of the circular wire segment shown in the figure.



6. 20%

Compute the moment of inertia of the composite area shown in the figure about x axis.

