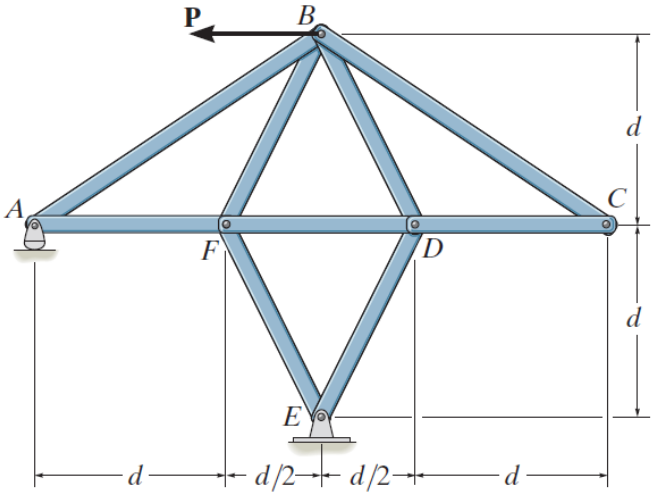
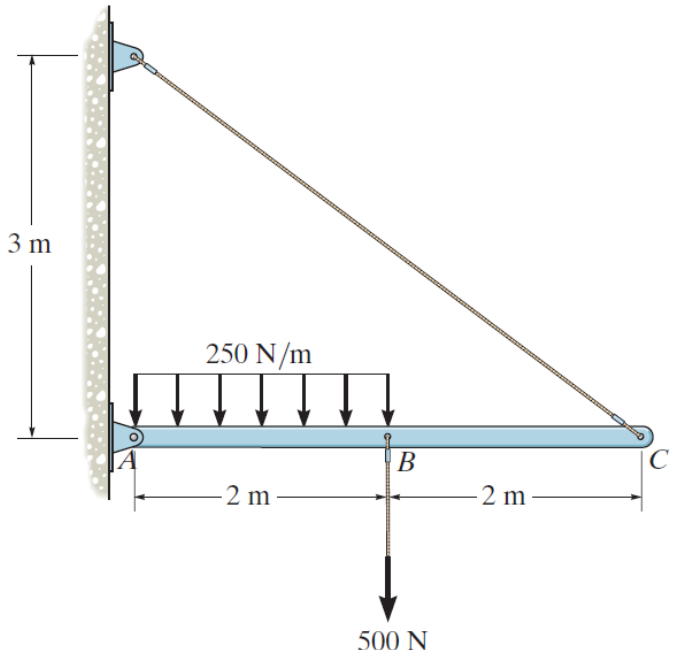
Submit your complete solution via MyCourses by Monday Dec 21, 23.59.

Exercise 1
If the maximum force that any member can support is 4 kN in tension and 3 kN in compression, determine the maximum force *P* that can be supported at joint *B*.
Take *d* = 1 m.

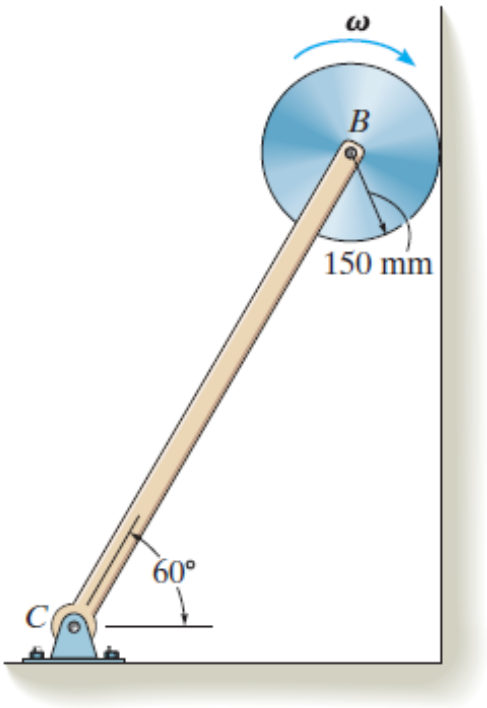


Exercise 2
Draw the shear and moment diagrams for the beam.



Exercise 3

The disk has a mass of 20 kg and is originally spinning at the end of the strut with an angular velocity of $\omega = 60$ rad/s. If it is then placed against the wall, for which the coefficient of kinetic friction is $\mu_k = 0.3$ determine the time required for the motion to stop. What is the force in strut *BC* during this time?



Exercise 4

At a given instant the slider block *A* is moving to the right with the motion shown. Determine the angular acceleration of link *AB* and the acceleration of point *B* at this instant.