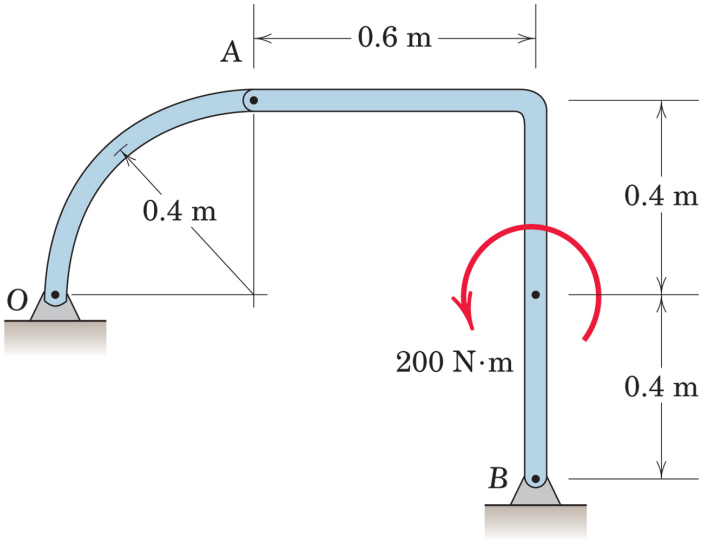
ENGG 202
March 13 Week 9

Problems

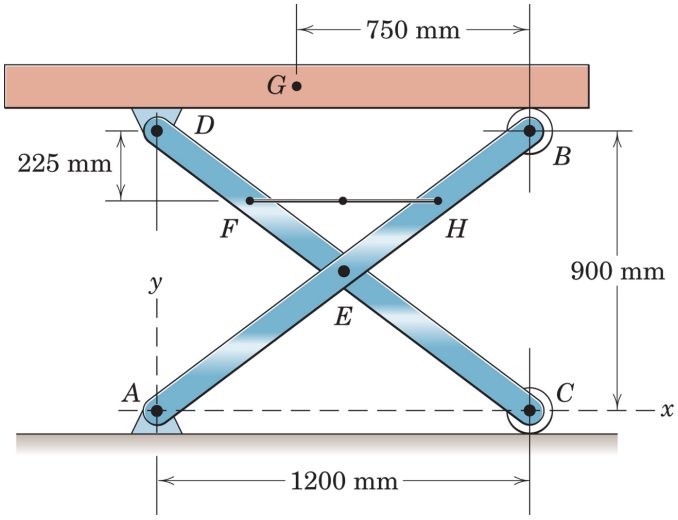
Problem 4/80

Determine the magnitude of the pin force at B.



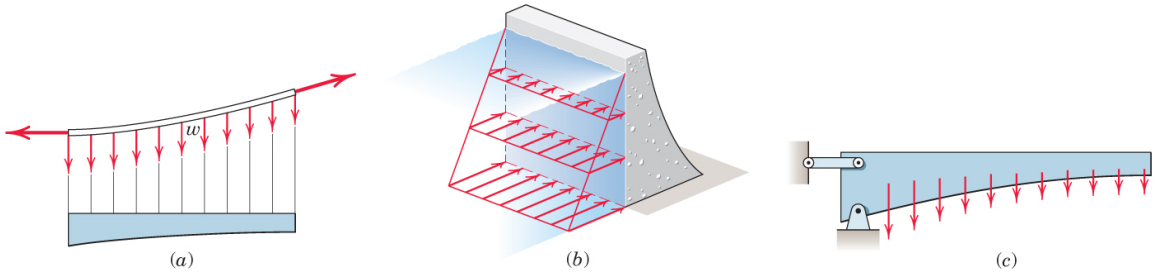
Problem 4/112 (modified)

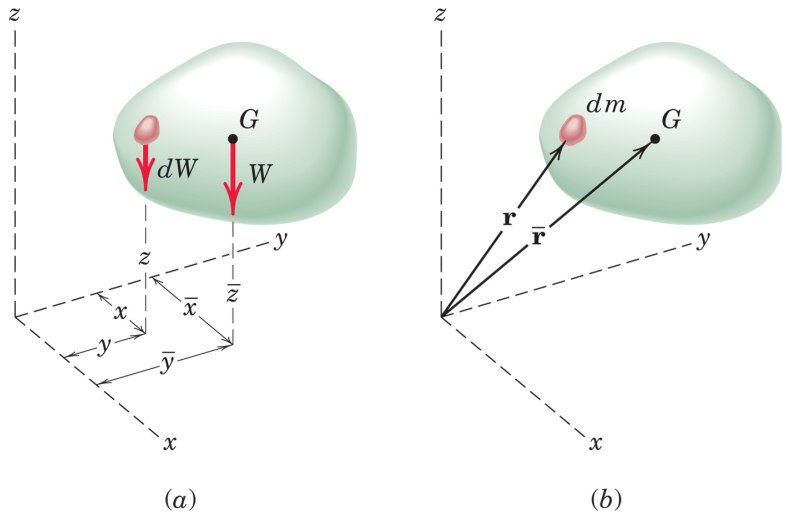
The top of the folding workbench has a mass of 50 kg with mass center at G. Calculate the x- and y- components of the force supported by the pin at E. Note that the link FH must be considered one inextensible member.



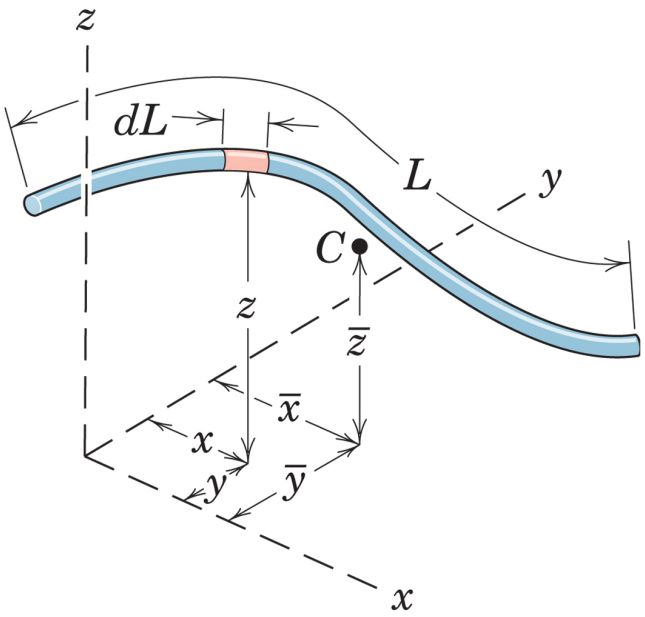
5/2 Centre of Mass

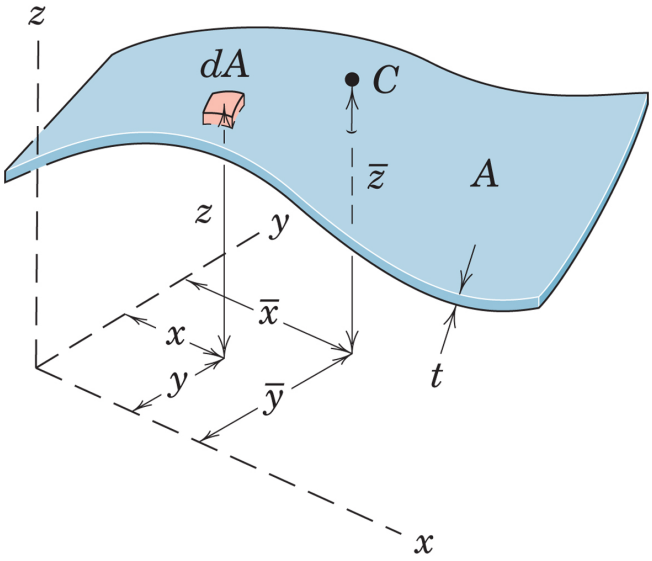
Determining the centre of gravity. Centre of mass vs. centre of gravity.



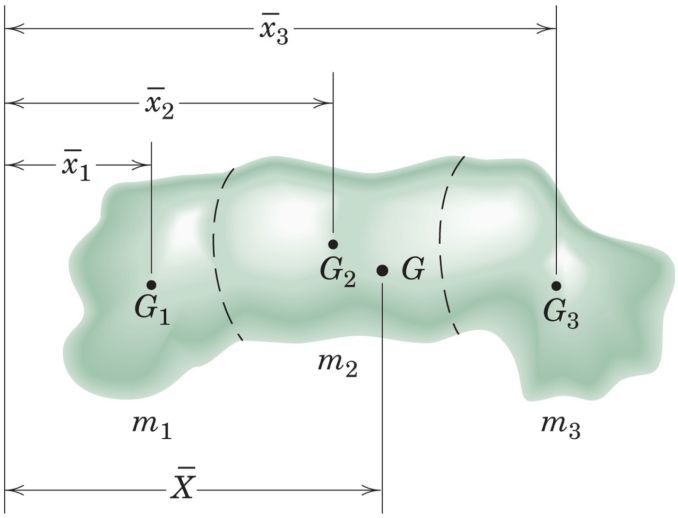


5/3 Centroids of Lines, Areas and Volumes





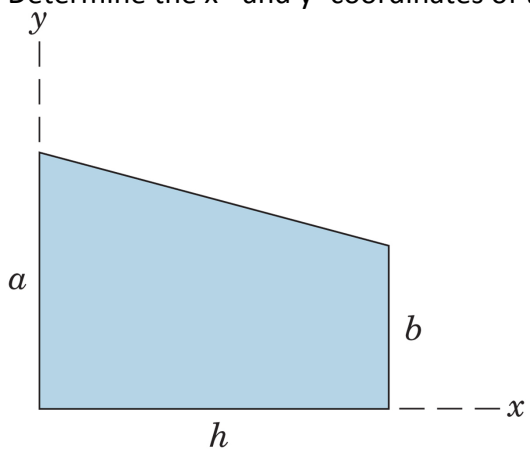
5/4 Composites bodies



$$\bar{X} = \frac{\Sigma m\bar{x}}{\Sigma m} \qquad \bar{Y} = \frac{\Sigma m\bar{y}}{\Sigma m} \qquad \bar{Z} = \frac{\Sigma m\bar{z}}{\Sigma m} \qquad \textbf{(5/7)}$$

Problem 5/8

Determine the x- and y- coordinates of the centroid of the trapezoidal area.



Problem 5/51

Determine the x- and y- coordinates of the centroid of the shaded area.