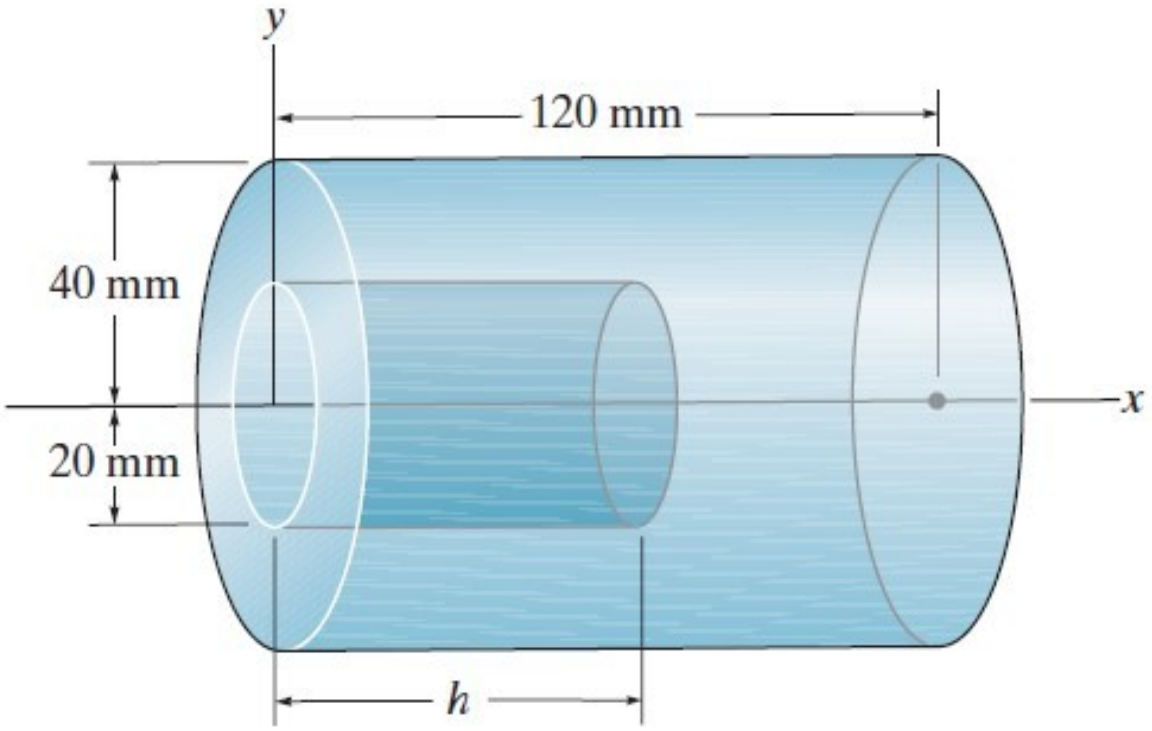
ME 201 STATICS

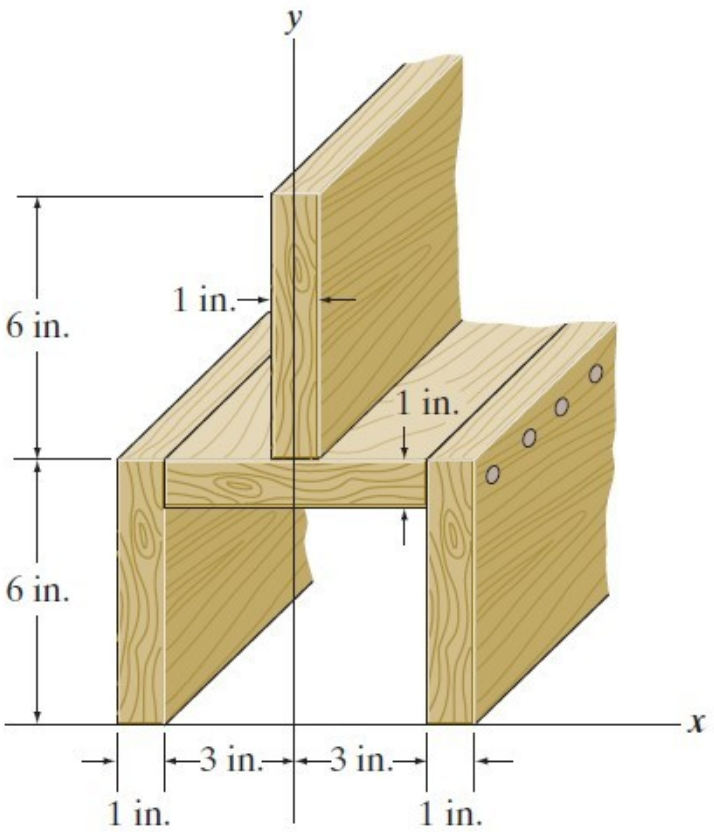
PROBLEM HOUR VIII

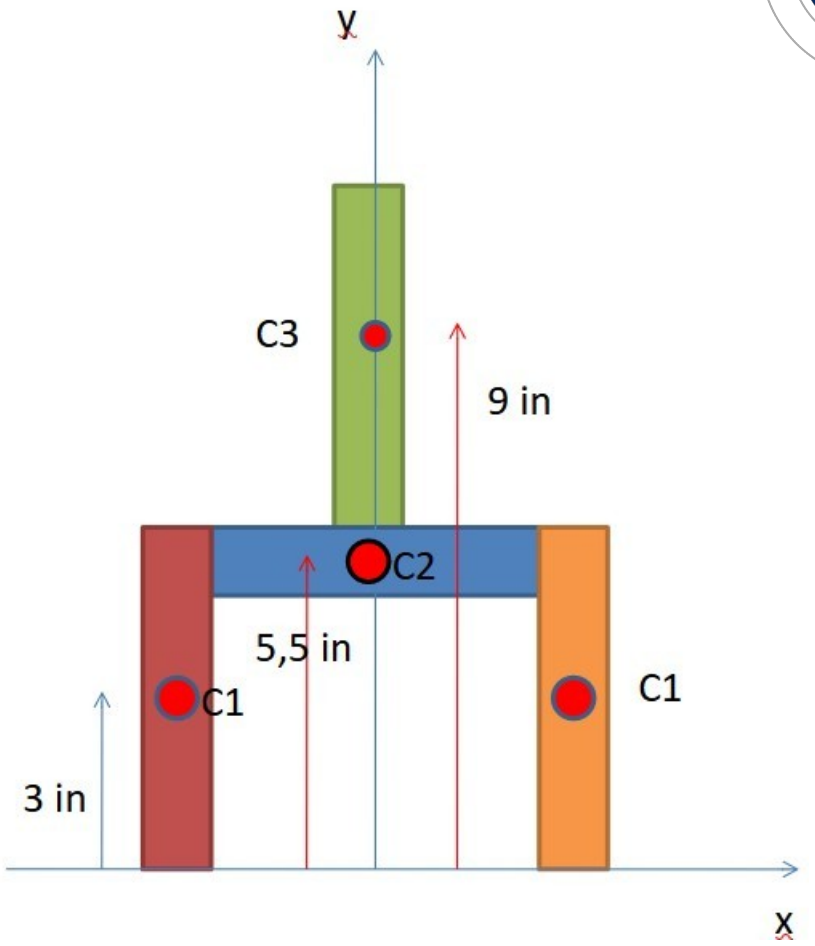
CENTROID OF COMPOSITE BODIES

Q1) Determine the distance *h* to which a hole must be bored into the cylinder so that the center of mass of the assembly is located at x=64 mm. The material has a density of 8 Mg/m^3.

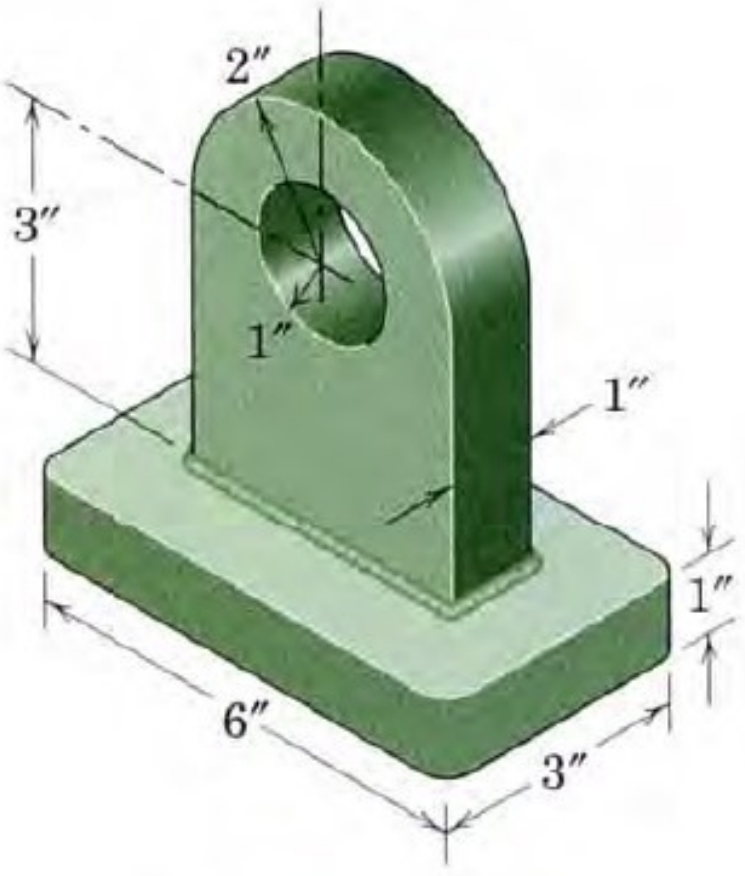


Q2) Locate the centroid $\bar{y}$ of the cross-sectional area of the built-up beam.

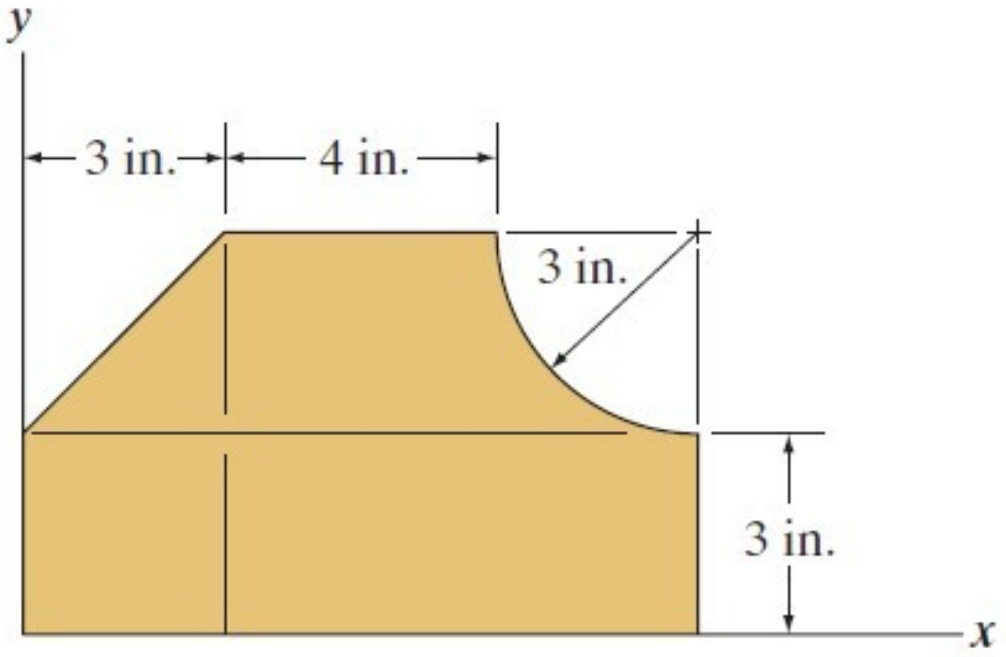




Q3) Determine the distance $\overline{H}$ from the bottom of the base to the mass center of the bracket casting.



Q4) Locate the centroid ($\bar{x}$, $\bar{y}$) of the composite area.



Q5) Locate the centroid ($\bar{x}$, $\bar{y}$) of the composite area.