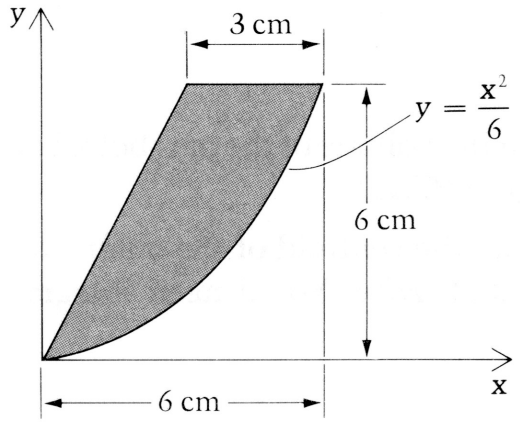
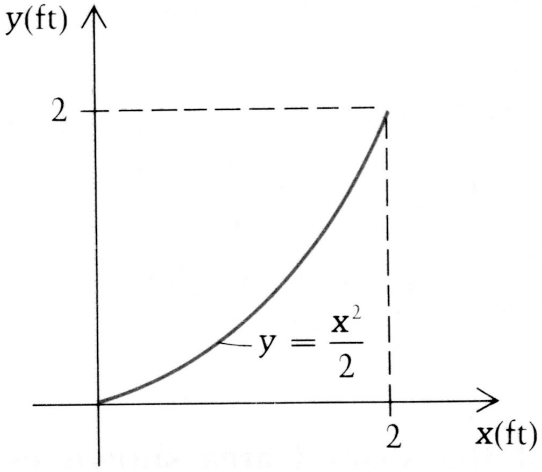
PHY 211 Statics HW 10

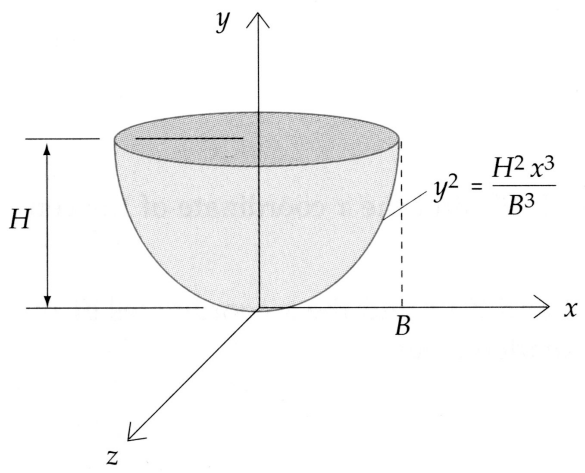


1. Find the coordinates of the centroid of the shaded region shown to the left.

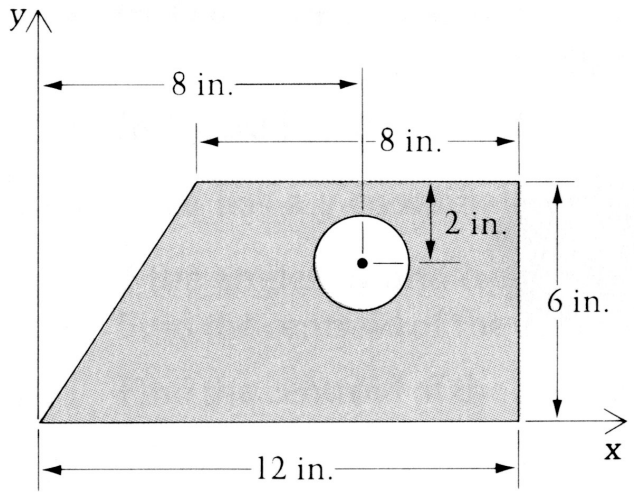


2. Find the x-coordinate of the centroid of the line segment shown at left. *Hint: Recall that*

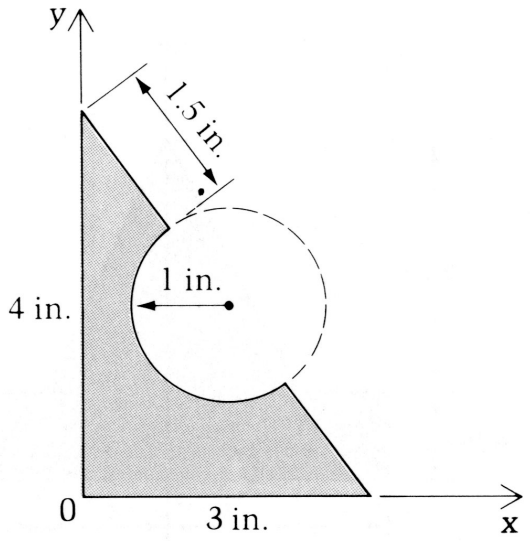
$$ds = \sqrt{dx^2 + dy^2} = dx\sqrt{1 + \left(\frac{dy}{dx}\right)^2}$$



3. Find the location of the centroid of the solid of revolution shown at left.



4. Find the location of the centroid of the shaded region shown at left.



5. Find the location of the centroid for the shaded region shown at left.