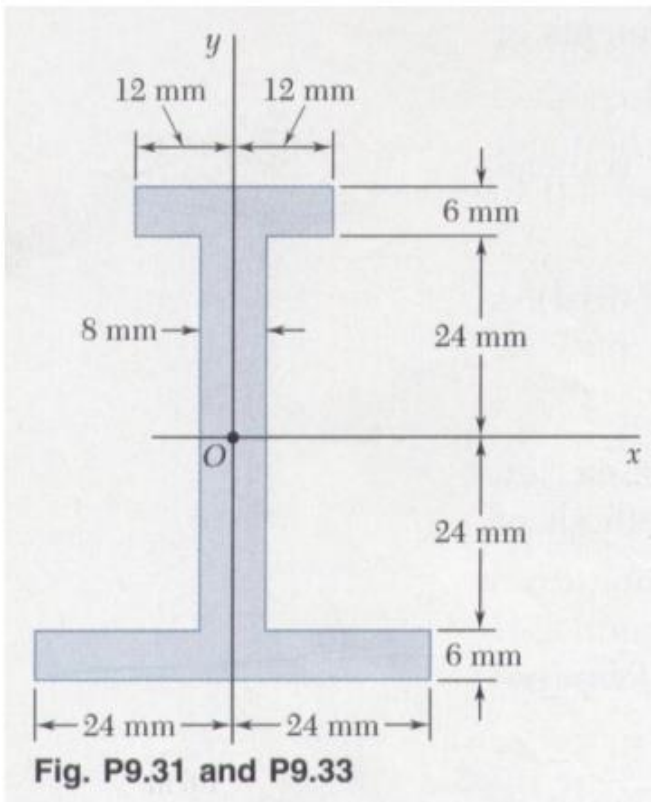
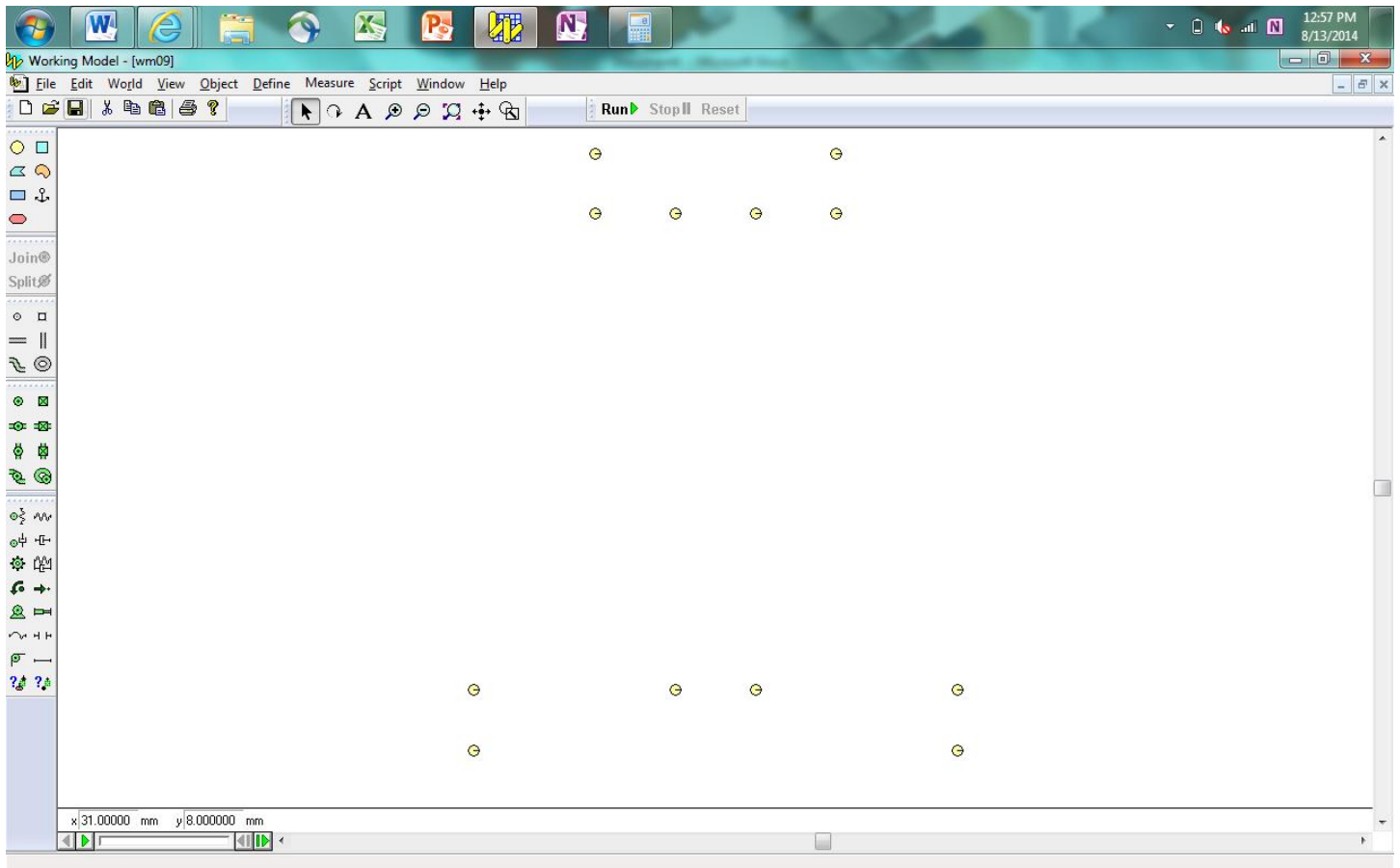


Working Model 09

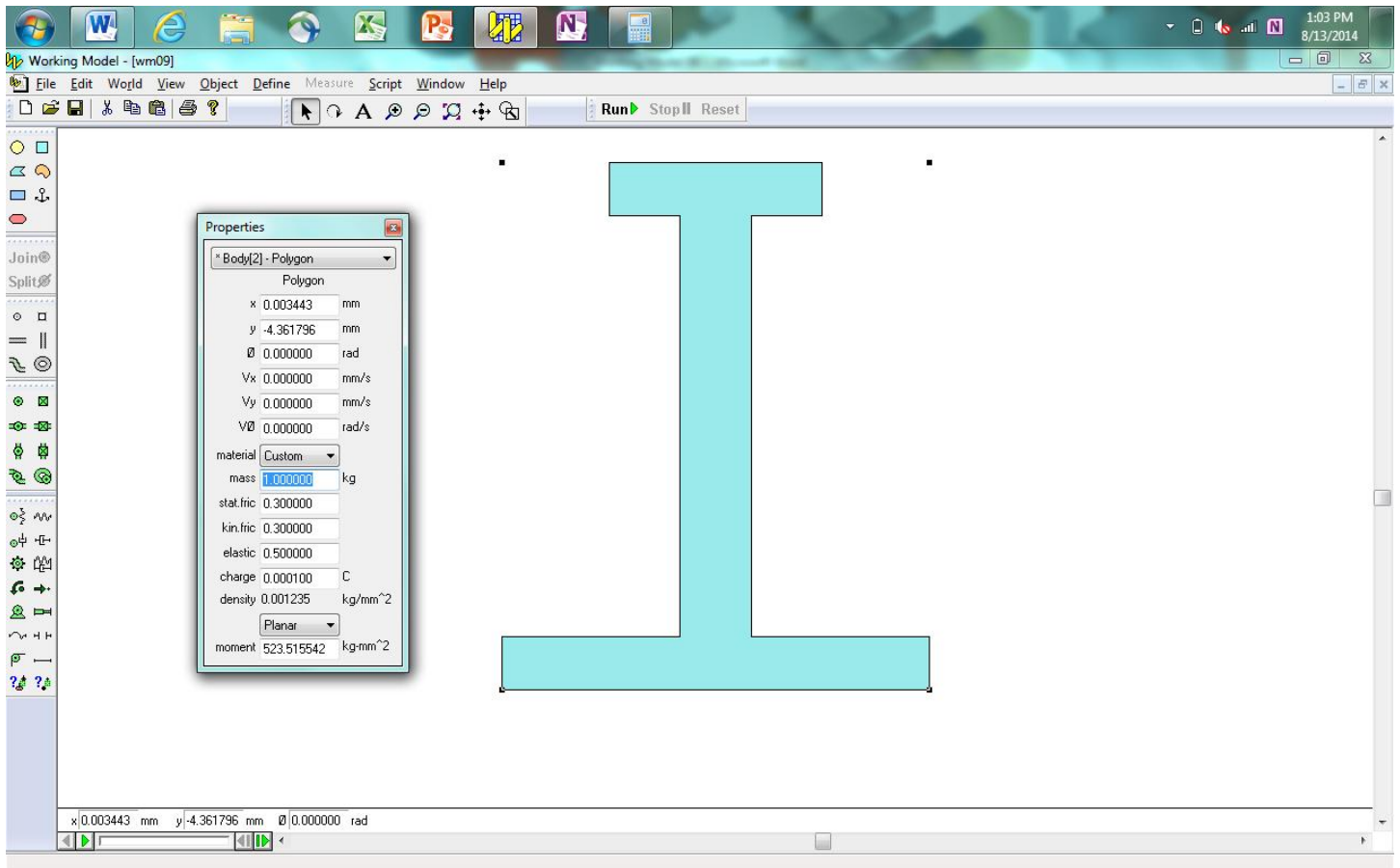
9.31 and 9.32 Determine the moment of inertia and the radius of gyration of the shaded area with respect to the x axis.



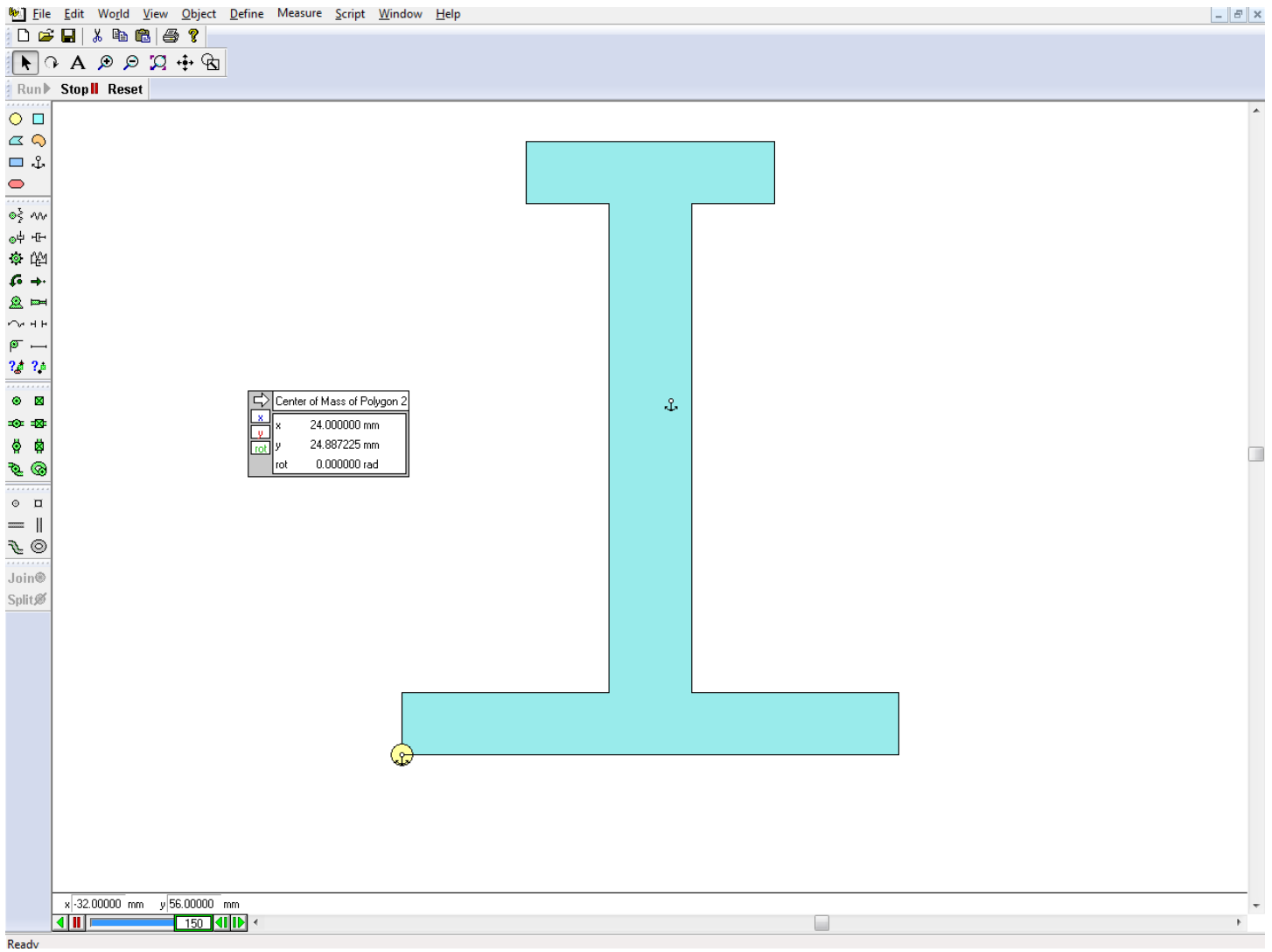
Construct the following simulation.



Use the Polygon tool to construct the shape. Then bring up the Properties dialog box to determine the moment of inertia of the shape. Set the mass of the shape to $m = 1.0$ kg.



The value listed under “Moment” is the mass moment of inertia about the centroidal axis normal to the plane of the shape. The location of the centroid can be found using the methods described previously. As shown below, the centroid is found measuring from the origin of the x and y axes that is placed at the center of the circle at the lower left-hand corner of the object.



When the results of your model match those shown above, take a screenshot of the model (with numerical values showing), copy and paste it into Microsoft Word, save it as a pdf file, and submit it to the Dropbox in Pilot.