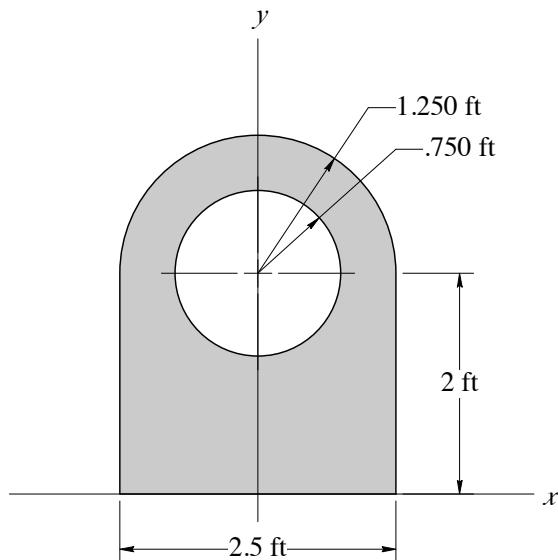


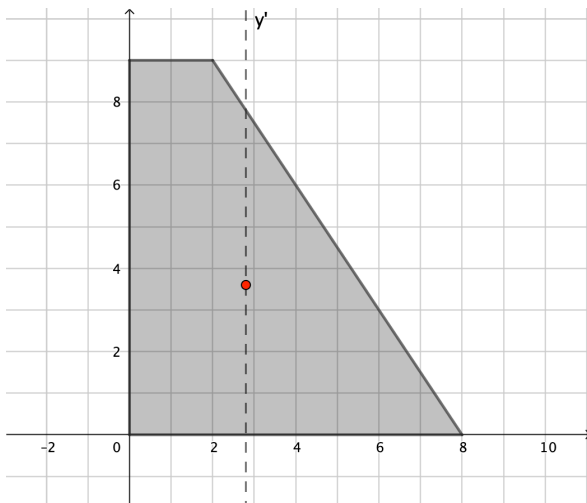
Example 1

- a) Determine the moment of inertia with respect to the x -axis.
- b) Determine the moment of inertia with respect to a horizontal axis through the centroid of the composite shape.



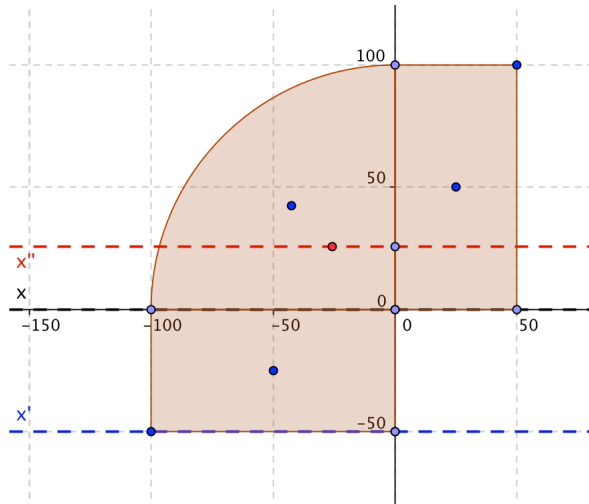
Example 2

Determine the moment of inertia of the composite shape about the centroidal y' axis. Grid units are [cm].



Example 2

Find the moment of inertia about x , x' and x'' axes.



Procedure:

1. Locate the centroid of the shape. The x'' axis passes through the centroid
2. Find the moment of inertia of the shape about the x -axis. This step is easy if you know the formulas.
3. Use the parallel axis theorem (backwards) to find the moment of inertia about the x'' axis.
4. Use the parallel axis theorem to transfer from the centroidal axis to the x' axis.