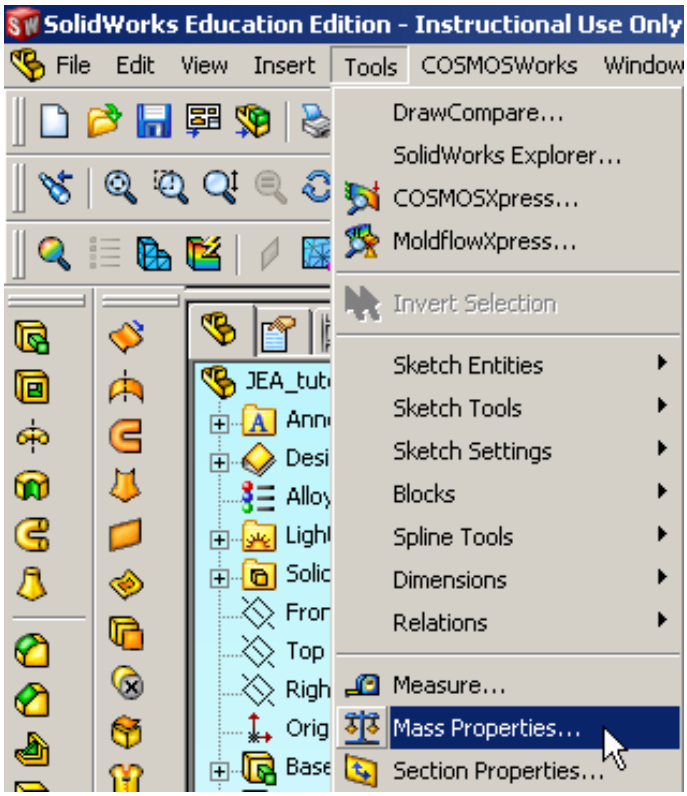
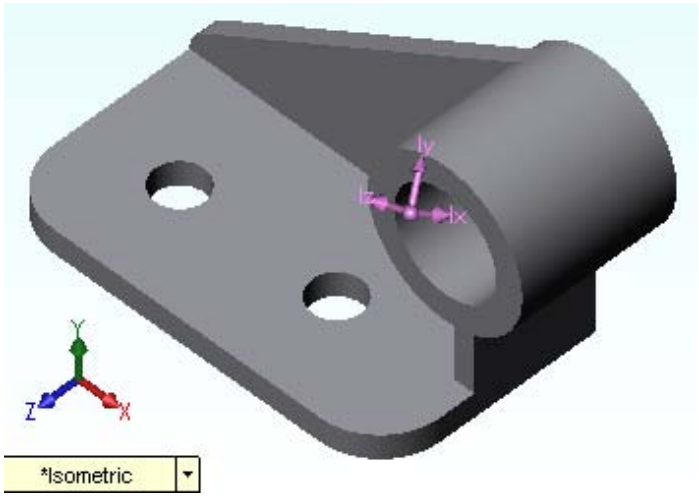
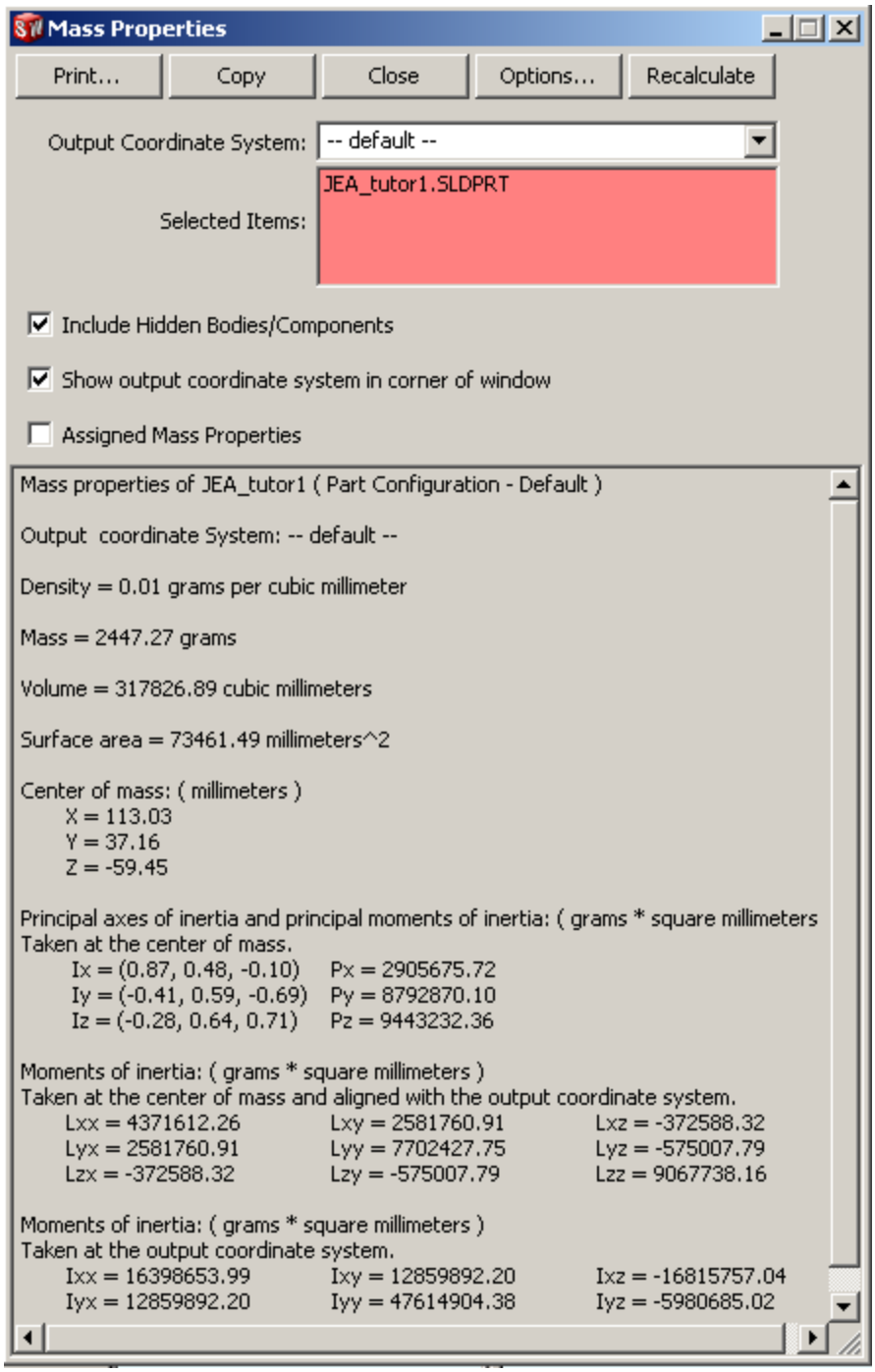
Obtaining Part Mass Properties in SolidWorks

Tools→Mas Properties






Mass Properties
Print...
Copy
Close
Options...
Recalculate
Output Coordinate System:
-- default --
Selected Items:
JEA_tutor1.SLDPRT
Include Hidden Bodies/Components
Show output coordinate system in corner of window
Assigned Mass Properties
Mass properties of JEA_tutor1 (Part Configuration - Default)
Output coordinate System: -- default --
Density = 0.01 grams per cubic millimeter
Mass = 2447.27 grams
Volume = 317826.89 cubic millimeters
Surface area = 73461.49 millimeters^2
Center of mass: (millimeters)
X = 113.03
Y = 37.16
Z = -59.45
Principal axes of inertia and principal moments of inertia: (grams * square millimeters
Taken at the center of mass.
Ix = (0.87, 0.48, -0.10) Px = 2905675.72
Iy = (-0.41, 0.59, -0.69) Py = 8792870.10
Iz = (-0.28, 0.64, 0.71) Pz = 9443232.36
Moments of inertia: (grams * square millimeters)
Taken at the center of mass and aligned with the output coordinate system.
Lxx = 4371612.26 Lxy = 2581760.91 Lxz = -372588.32
Lyx = 2581760.91 Lyy = 7702427.75 Lyz = -575007.79
Lzx = -372588.32 Lzy = -575007.79 Lzz = 9067738.16
Moments of inertia: (grams * square millimeters)
Taken at the output coordinate system.
Ixx = 16398653.99 Ixy = 12859892.20 Ixz = -16815757.04
Iyx = 12859892.20 Iyy = 47614904.38 Iyz = -5980685.02