## IDE 50 - Statics - Fall 2005

Exam 4 – Centroids, Moment of Inertia

1. Determine the location (x, y) of the centroid.

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2. Determine the volume created by revolving the area shown 360° about the y-axis. The units are in inches.



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3. Determine  $I_y$  of the shaded area with respect to the *y*-axis.

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4. Determine the angle  $\theta_p$  of the principal axes with respect to the x-y axes. Hint: You will need I<sub>x</sub>, I<sub>y</sub>, and  $I_{xy}. \\$ 

