WebAssign
Hw 18 (8.3): App. to Physics and Engineering (Homework)

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MA 162 Spring 2012, section 321, Spring 2012
Instructor: Jonathan Montano

Current Score : 20 / 20 **Due :** Tuesday, February 28 2012 11:55 PM EST

1. 4/4 points | Previous Answers SCalcET7 8.3.023.MI.

The masses m_i are located at the points P_i. Find the moments M_x and M_y and the center of mass of the system.

$m_1 = 2, m_2 = 3, m_3 = 5;$
$P_1(2, -5), P_2(-3, 3), P_3(3, 5)$

$M_x =$ ✔

$M_y =$ ✔

$(\bar{x}, \bar{y}) =$ (✔)

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2. 4/4 points | Previous Answers SCalcET7 8.3.029.

Find the centroid of the region in the first quadrant bounded by the given curves.

$y = x^2, \quad x = y^2$

$(\bar{x}, \bar{y}) =$ (✔)

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3. 4/4 points | Previous Answers SCalcET7 8.3.031.

Find the centroid of the region bounded by the given curves.

$y = 6 \sin 3x, \quad y = 6 \cos 3x, \quad x = 0, \quad x = \frac{\pi}{12}$

$(\bar{x}, \bar{y}) =$ (✔)

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4. 4/4 points | Previous Answers SCalcET7 8.3.034.

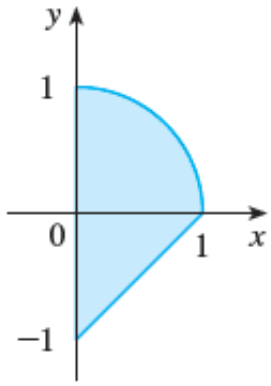
Calculate the moments M_x and M_y and the center of mass of a lamina with the given density and shape.

$\rho = 3$

$M_x =$ 1/2 ✔

$M_y =$ 3/2 ✔

$(\bar{x}, \bar{y}) =$ (✔)



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5. 4/4 points | Previous Answers SCalcET7 8.3.035.

Calculate the moments M_x and M_y and the center of mass of a lamina with the given density and shape.

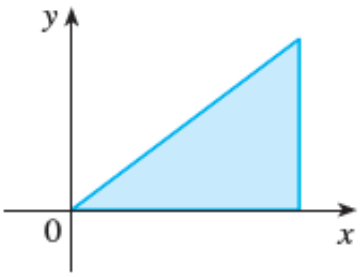
$\rho = 5$

$M_x =$ 30 ✔

$M_y =$ 80 ✔

$(\bar{x}, \bar{y}) =$ (✔)

(4, 3)



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