Web**Assign**
Hw 17 (14.7): Maximum and Minimum Values (Homework)

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MA 261 Fall 2012, section 121, Fall 2012
Instructor: David Daniels

Current Score : 20 / 20   **Due :** Thursday, October 4 2012 11:00 PM EDT

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1. 5/5 points | Previous Answers   SCalcET7 14.7.032.

Find the absolute maximum and minimum values of f on the set D.

$f(x, y) = 4x + 6y - x^2 - y^2 + 7,$

$D = \{(x, y) \mid 0 \le x \le 4, 0 \le y \le 5\}$

absolute maximum value   20   ✔

absolute minimum value   7   ✔

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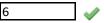**2.** 5/5 points | Previous Answers   SCalcET7 14.7.034.

Find the absolute maximum and minimum values of f on the set D.

$f(x, y) = xy^2 + 4, \quad D = \{(x, y) \mid x \ge 0, y \ge 0, x^2 + y^2 \le 3\}$

absolute maximum value   6   ✔

absolute minimum value   4   ✔

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3. 5/5 points | Previous Answers   SCalcET7 14.7.039.MI.

Find the shortest distance, d, from the point $(3, 0, -2)$ to the plane $x + y + z = 2$.
$d =$

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4. 5/5 points | Previous Answers   SCalcET7 14.7.042.

Find the points on the surface $y^2 = 4 + xz$ that are closest to the origin.

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