

Name _____

Due Nov. 1

Lab III, Math. 2673

The purpose of this problem is to further motivate the use of Maple in doing rather complicated max/min problems. Please make the graph.

1. Find local max / min and saddle points (if any) for each of the following:

a.) $3x^2y + y^3 - 3x^2 - 3y^2 + 2$

b.) $x^4 - 5x^2 + y^2 + 3x + 2$

2. Find absolute max / min points (if any) for each of the following on the specified region:

a.) $y = \sin(x + y)$ for $0 \leq x \leq \pi/2$ and $0 \leq y \leq \pi/2$.

b. Do page 1048 Ex. 37. Illustrate your result with a maple drawing.