Math 253, Section 102, Fall 2006
Quiz 6, November 8

Name: SID:

Instructions

- The total time is 20 minutes.
- The total score is 25 points.
- Use the reverse side of each page if you need extra space.
- Show all your work. A correct answer without intermediate steps will receive no credit.
- Calculators and cheat sheets are not allowed.

Problem	Points	Score
1	10	
2	15	
TOTAL	25	

1. Identify, if they exist, the local maximum and minimum values and saddle points of the function

$$f(x, y) = e^{4y - x^2 - y^2}.$$

(10 points)

2. Find the absolute maximum and minimum values of
$$f(x, y) = 2x^2 + 3y^2 - 4x - 5$$
on the domain $x^2 + y^2 \leq 16$.

(15 points)