

**Math 225: Calculus III**  
**Quiz 3 Feb 8/10, 1994**

Name: \_\_\_\_\_  
Section: \_\_\_\_\_

1. Describe the level curves of the function  $f(x, y) = \sqrt{x^2 - y^2 - 4x + 2y + 54}$ .

2. Show that the limit  $\lim_{(x,y) \rightarrow (0,0)} \frac{\sin(x) \sin(y)}{x^2 + y^2}$  does not exist.