MA 234-01 §3.7, 3.9, 4.1 Quiz #3

score

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

18 April 1997

Let 
$$f(x,y) = x^4 - 2x^2 + y^2 + 1$$
.

1. Find all of the critical points for f. (8 points)

2. For each critical point, determine if it is a local maximum, a local minimum, or a saddle point. Explain your reasoning. (12 points)