

MA 234-01  
§13.7, 13.9, 14.1

# 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  $f$ . (10 points)

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2. For each critical point, determine if it is a local maximum, a local minimum, or a saddle point. Explain your reasoning. (10 points)