

Quiz 3 Calculus 3 10/8/2004

Each problem is worth 5 points. Clear and complete justification is required for full credit.

1. Find all critical points of the function $f(x,y) = x^3 + y^2 - 3x^2 + 10y + 6$.

2. The function $g(x,y) = 2x^3 + xy^2 + 5x^2 + y^2$ has one of its critical points at $(-1, 2)$. Classify that critical point as a local minimum, local maximum, or saddle point.