Math 251 **Quiz 06 (WeBWorK 7)**

November 4, 2013; 10 minutes Name: _____

This quiz is *open-note*, but no books or calculators may be used. In calculation, you can show work at your discretion, but remember that I can't give partial credit for calculations I can't see. Explain anything that seems to need explaining.

1. (18 points) Find the critical points of the function

$$f(x,y) = x^3 + y^4 - 6x - 16y^2.$$

Use the second derivative test to determine whether each critical point is a local minimum, local maximum, or saddle point.