## MATH 2130 – Tutorial Problems, Thu Mar 1

## Critical Points and Extreme Values

**Example.** Let  $f(x,y) = y^4 + x^2y + x^2$ . Find all critical points of f, and classify them as relative minima, relative maxima, saddle points, or none of these.

**Example.** Let f(x,y) = x - |y-2|. Find all critical points of f, and classify them as relative minima, relative maxima, saddle points, or none of these.