

**Math 2415**  
**Paper Homework #8**

1. **14.7A, Local Max/Min:** Find all local maxima, local minima, and saddle points of the function  $f(x, y) = 2xy - 5x^2 - 2y^2 + 4x + 4y - 4$ .
2. **14.7B: Global Max/Min:**
  - (a) Find the absolute maximum and minimum values of  $f(x, y) = x + y - xy$  on the closed triangular domain with vertices  $(0, 0)$ ,  $(0, 4)$ , and  $(8, 0)$ .
  - (b) Find the absolute maximum and minimum values of  $f(x, y) = e^{-x^2-y^2}(2x^2 + y^2)$  on the domain  $x^2 + y^2 \leq 4$ .