

**Math 1314 ONLINE**

**Popper 14, Part 2**

**Enter your answers by 11:59 p.m. on 4/24/13. If the answer is not listed, choose E.**

For these questions, suppose  $f(x, y) = 2x^2 - xy + 3y^2 - 4x - 8y + 10$ .

1. Find  $f_x$ .

- A.  $-x + 6y - 8$       B.  $4x - 1 + 6y$       C.  $4x - y + 6$

2. Find  $f_{xy}$ .

- A. -1      B. 6      C. 4

3. Find the critical point.

- A. (1.3913, 1.5656)      B. (1.3913, 1.5552)      C. (1.3913, 1.5652)

4. Find D.

- A. 25      B. 24      C. 23      D. 22

5. Does the function have a relative max, a relative min, a saddle point or none of these at the critical point?

- A. relative max      B. relative min      C. saddle point      D. none of these.