

MATH 152 Quiz 4

Name:

Class time:

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Show all work. 5 points each.

1) Find the critical point of  $f(x, y) = x^2 - 2xy + 2y^2 + x - 5$ .

2) Find the maximum of  $f(x, y) = x^2y$  relative to the constraint  $2x + y = 4$ . Make sure to show the system of equations that you need to solve. (i.e.  $F_x = 0$ ,  $F_y = 0$ ,  $F_\lambda = 0$ )