

**Quiz 7**; Wednesday, March 9  
**MATH 53** with Professor Stankova  
**Section 116**; 3-4  
**GSI**: Eric Hallman

**Student name:**

You have 10 minutes to complete the quiz. Calculators are not permitted, and remember to show your calculations and explain your reasoning in order to receive full credit.

1. Minimize the function  $f(x, y) = 5x^2 - 2xy + 5y^2$  given the constraints  $x \geq 0, y \geq 1$ .