Student ID:

Student Name:

Serial Number:

Math 201, Section 12
Spring 2017, Term 161

Quiz 5
Version A

Instructions: Show Your Work!

1. (10 pts) Use Lagrange multipliers to find the extreme values of the function

$$f(x, y) = \frac{1}{x} + \frac{1}{y}$$

subject to the constrain

$$\frac{1}{x^2} + \frac{1}{y^2} = 1.$$

Student ID:

Student Name:

Serial Number:

Math 201, Section 15
Spring 2017, Term 161

Quiz 5
Version B

Instructions: Show Your Work!

1. (10 pts) Use Lagrange multipliers to find the extreme values of the function

$$f(x, y) = \frac{1}{x} + \frac{1}{y}$$

subject to the constrain

$$\frac{1}{x^2} + \frac{1}{y^2} = 1.$$