

Full name: _____ GT ID: _____ Sec: _____

Quiz 6 Version A

You have 15 minutes to take the quiz. No phones, notes, or use aids of any kind is permitted.

1. (10 points) [**Lagrange Multipliers**]

Find the maximum and minimum value of $f(x, y)$ subject to the constraint $g(x, y) = k$ using the method of Lagrange multipliers. [AJN]

$$f(x, y) = x^2y, \text{ subject to } x + y = 3.$$