

Math 53, Spring 2000, sections 107 & 109
Quiz #5, 18 February

Name_____

Instructions: You have 20 minutes in which to answer the following two questions. No calculators, notes, or other references may be used.

1. (5 points) Find the value of the following limit, or demonstrate that it does not exist:

$$\lim_{(x,y) \rightarrow (0,0)} \frac{x^2y - xy^2}{y^3 - x^3}$$

2. (5 points) Find the value of the following limit, or demonstrate that it does not exist:

$$\lim_{(x,y) \rightarrow (1,1)} \frac{x^2y - xy^2}{y^3 - x^3}$$