

# Math 2215 - Calculus 1

Quiz #10 - 2011.03.22

Name: \_\_\_\_\_

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Consider the following optimization problem:

Find the positive numbers  $x$  and  $y$  such that the sum of  $x$  and  $y$  is as small as possible, assuming that  $y$  is the reciprocal of  $x$ .

Express this problem as an optimization problem, i.e., write down a function to maximize/minimize along with a constraint function. You do not have to solve the problem.