Problem 1 (due Monday, Feb. 17)

a) Is there a one-to one and onto function $f: (0,1)\longrightarrow (0,1)$ such that $f'=f^{-1}$, i.e. the derivative of f equals the inverse of f?

b) Is there a one-to one and onto function $f: (0,\infty)\longrightarrow (0,\infty)$ such that $f'=f^{-1}$, i.e. the derivative of f equals the inverse of f?

This problem was solved by only one participant: Yuqiao Huang. The submitted solution has been essentially the same as our “in-house” solution. To see the solution and some related open questions click the following link Solution