

Submit your solutions before the finishing date to the address: [ProbOfTheWeek@utdallas.edu](mailto:ProbOfTheWeek@utdallas.edu)

## Problem of the Week

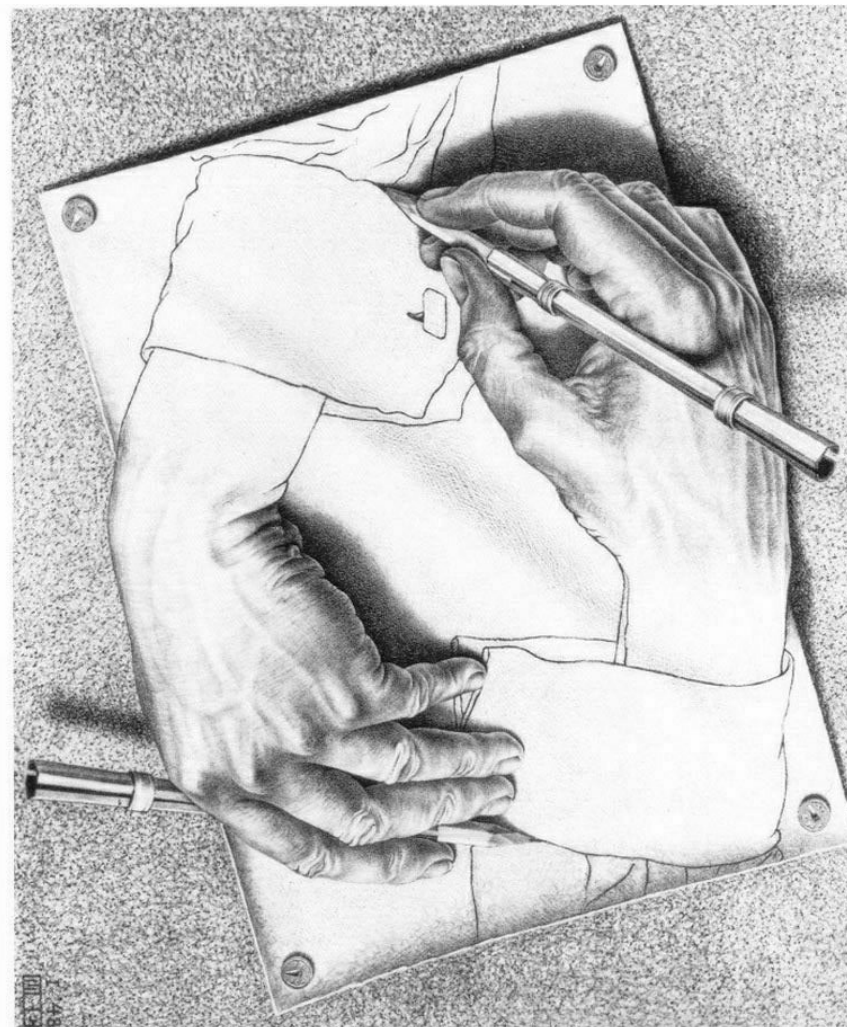
Finishing date: 10/06/2017

Find all strictly decreasing functions  $f(x)$  from the positive real numbers to the positive real numbers such that, for any positive real  $x$  and  $y$ , the following holds:

$$f(xf(y)) = yf(x)$$

Previous problem winners:

**Stephen Skapek (first solution)**



M.C. Escher (1948)

All the information about the Problem of the Week challenge can be found at:  
[utdallas.edu/math/undergraduate/problem-of-the-week](http://utdallas.edu/math/undergraduate/problem-of-the-week)

