Assignment #3; Due February 6 at start of class

Show that prfs are closed under mutual induction. Mutual induction means that each induction step after calculating the base is computed using the previous value of the other function. The formal hypothesis is:

Assume g1, g2, g3, h1, h2 and h3 are already known to be prf, then so are f1, f2 and f3, where

f1(x,0) = g1(x); f1(x,y+1) = h1(f2(x,y),f3(x,y));
f2(x,0) = g2(x); f2(x,y+1) = h2(f3(x,y),f1(x,y))
f3(x,0) = g3(x); f3(x,y+1) = h3(f1(x,y),f2(x,y))