

$F: X \times Y \rightarrow Z$  we say that  $F$  is

continuous in each variable if for  $y_0 \in Y$ ,  
 $h: X \rightarrow Z$  as  $h(x) = F(x, y_0)$  is continuous and for  
 $x_0 \in X$   $k(y) = F(x_0, y)$  is continuous.

Show that if  $F$  is continuous then it  
is continuous in each variable.

$g: Y \rightarrow Y$  by  $g(y) = y_0$  is continuous.

so  $h(x) = F \circ g(x, y)$  so it is continuous.