

Ex. 5.4-3

IDEA: Constructive: show that from a non-simple path you can define a simple path.

~~REPEAT~~

i.e. given a non-simple path;  $(U_1, \dots, U_k)$   
 if subpath  $(w_1, \dots, w_k)$  forms a cycle ( $w_1 = w_k$ ),  
 I can remove nodes  $w_2, \dots, w_k$  from the  
 original path and the new path will be  
 a path between  $U_1, U_k$ .

- If the new path is simple I am done
- If the new path is not simple, I need to repeat the above.

~~REPEAT~~