Section 3 - Extra practice with higher order functions

Write each of the following SML functions. Use map, filter, or fold when possible to get some practice!

a) Write a function `swap_pairs_list` that takes a list of pairs and returns a list of pairs with each of the original pairs’ values swapped.

b) Write a function `size` that takes a list and returns the number of elements in that list.

c) Write a function `remove_all` that takes a value and a list and returns a list of the values in the original list not equal to the given value.

d) Write a function `contains` that takes a value and a list and returns true if the given value is in the list (false otherwise).

e) Write a function `intersect` that takes two lists as parameters and returns a list that has all of the values contained in both of the given lists. You should use `contains` in your answer.
Section 3 - Extra practice solutions

This handout was composed by Porter Jones. There are probably plenty of typos/incorrect solutions/etc for you to catch! Please email me with any issues, comments, or feedback at pbjones@cs.washington.edu. All thoughts are welcome :)