

First we find every single permutation of the boards. Then we prune off all the boards where the layout is impossible or that 'x' doesn't go first. Then we count up all the victories and tally them for display.

The program compiles in 1.5 seconds. This is because we evaluate every permutation even ones with all 'x's and all 'o's before we start pruning them off. The output is correct since we start with the very first permutation being the first sorted and gradually evaluate every other permutation.

If we didn't evaluate every permutation the program would be much faster. If we could exploit symmetry to solve this problem I believe the program would be much faster as well. It would shave off time for both the pruning and the evaluation.