



Two Knights

Task. Two pieces of chess – a white and a black knight – are placed on a chess board. Determine the squares where the white knight can move without being captured by the black knight.

Note. The white knight can move to the square occupied by the black knight, i.e. capture the black knight.

Input. The input consists of the coordinates of the white and the black knights. The horizontal coordinates are marked from the left to the right by the letters **a..h**. The vertical coordinates are marked from the bottom to the top by the numbers **1..8**.

Output. Output should consist of possible positions of the white knight after the move. The positions (squares) should be listed clockwise starting from the top square. In case there are two top squares, start from the leftmost square.

Examples.

Input	Output
a4 c5	b6 c5 c3 b2