Problem T. Double reverse

Time limit   1000 ms

Mem limit   125106 kB

Given a sequence of positive integers **1, 2, 3**, ..., **n**. Arrange first in reverse order the part of this sequence starting from the element with number **a** to the element with number **b**, and then reverse the subsequence starting from element with number **c** to the element with number **d**.

Input

Given the integers **n** ($1 \le n \le 1000$), **a, b, c, d** ($a < b$, $c < d$, $1 \le a, b, c, d \le 1000$)...

Output

Print the resulting sequence.

Example

Input	Output
9 2 5 6 9	1 5 4 3 2 9 8 7 6

Input	Output
9 3 6 5 8	1 2 6 5 8 7 3 4 9