

Problem 4: Boxes

Statement

Survey Corps has acquired new weapons that they need to transport to **Marley** in chests of various sizes. Commander **Levi** is obsessed with organization, therefore he has assigned **Sasha** and **Connie** to arrange the weapons by size inside giant boxes, In order to help them complete their mission to the fullest, he had putten comparison signs between the chests so that if they find a larger mark behind a box, the size of the weapon in it must be larger than all the remaining weapons, not just the next weapon.

Input

Number of guns
Size of each Gun
Equality Signs

Output

Weapons arrangement in boxes

Note: There are no guns with the same size.

Example

Input	Output
3 100 120 3 < >	3 120 100

