Algorithm: Our strategy is to find the monster that can improve the hero the most after beating it among the monster that the hero is able to beat. If no such monster, find the monster that weaken the hero the least among the monster that the hero is able to beat.

Step 1: Sort the monsters by the difference between strength gained and strength dissipated to array A, that is to sort monsters by $g_i - a_i$ to array A for $1 \leq i \leq N$.

Step 2: Find a monster that the hero can defeat from the first element of array A. Let the hero defeat the monster and remove the monster from array A.

Step 3: Repeat step 2 until we cannot find such a monster. If there are still elements in array A, output “no such ordering”.