Problem Author: Harry Smit



■ **Problem:** increase attribute scores so that you maximize a certain score function.

Statistics: 139 submissions, 8 accepted, 78 unknown

BAPC 2021 November 1, 2021

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- First set all attributes to the lowest value they need to be to pass all the challenges (if this is impossible, the maximum score is 0).
- Improve your score by increasing an attribute by one. There are two cases:
 - If the attribute score equals *a* of the challenge requirements, you get points equal to *a* times the new attribute score, plus the number of events that require a lower score for that attribute.
 - Otherwise, spending a point here gives additional score equal to the number of events that use this attribute.

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- Be greedy: sort these options and spend points until none are left.

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- Runtime: $\mathcal{O}(n \log n + I)$.

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