

# ***Editorial - 2***

## **Difficulty:**

Easy

## **Prerequisites:**

Basic Math

## **Problem in Brief:**

You are given set of  $N$  integers. You have to split it into subsets in such way that sum for all subsets of ( subset size \* (sum of elements in subset) ) is maximized.

## **Editorial:**

Since we want to maximize multiplier of positive elements, they all should be in the same subset. Also we can take with them some largest of negative elements.

Since we want to minimize the multiplier of negative elements, each of remaining negative elements will be in the set containing only this element (i.e. single element sets).

Thus we brute force the number of negative elements which will be in the set with positive ones and choose the best possible sum among all this variants.

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## **Time Complexity:**

We will need to sort the array and then do a linear swap. Hence the Time Complexity is

$O(N * \log(N))$

## **Similar Problems:**

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