Array Reduction

There is an array of n integers called num. The array can be reduced by 1 element by performing a move. Each move consists of the following three steps:

1. Pick two different elements num[i] and num[j]. ($i \neq j$)

2. Remove the two selected elements from the array.

3. Add the sum of the two selected elements to the end of the array.

Each move has a cost associated with it: the sum of the two elements removed from the array during the move. Calculate the minimum total cost of reducing the array to one element.

Example

num = [4,6,8]

Remove 4 and 6in the first move at a cost of 4 +6 =10, and the resultant array is num' = [8,10].

Remove 8 and 10 in the second move at a cost of 8 + 10 = 18, and the resultant array is num" = [18].

Cost for this move is… 10 + 18 = 28 is the minimum one..