

## Ice hockey

Divide the matches into two parts, each of size at most 20. Compute the sums of all (at most  $2^{20} \approx 10^6$ ) subsets of the first part, and store them in a sorted array  $A$ . For each subset  $X$  of the second part, compute its sum  $s$ ; the number  $n_X$  of ways this subset can be extended to a set of matches with cost at most  $M$  is the number of elements of the array  $A$  that are smaller or equal to  $M - s$ . This number can be determined by binary search in  $A$ . The result is obtained by taking the sum of  $n_X$  over all subsets  $X$  of the second part.