Problem F: Crossing the River on April 20

Your set of N boats needs to cross the river. Each boat has a size a_i, and the toll to cross the river for a given boat is equal to the size of the boat. Fortunately for you, you're able to stack up to 2 boats at once: stacking boats j and k and crossing the river will only have a cost of $max\{a_j, a_k\}$.

As you are the lone operator of the boats, a boat can only cross the river if you're piloting it. Furthermore, the only way for you to cross the river is by boat. Finally, the river tolling committee can be bribed by paying \$420 to cover a toll instead of the normal price, if you wish (you may do this as often as you like).

What's the minimum cost to get all your boats to the other side?

Input Specification:

The input consists of several test cases, one per line. Each line consists of an integer $1 \leq N \leq 420$, the number of boats, followed by N unique numbers $1 \leq a_i \leq 31337$. The input ends on EOF.

Output Specification:

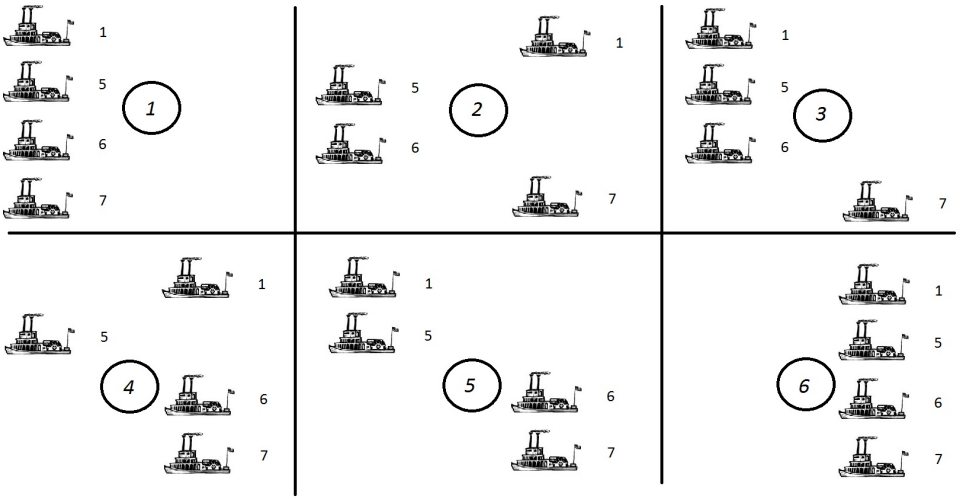
For each testcase, output the minimum cost required to get all the boats to the other side.

Sample Input:

```
2 2 4
4 1 5 6 7
```

Sample Output:

```
4
20
```



One optimal solution to the second sample input