Problem E. Diet

Input : Standard Input
Output : Standard Output

Bessie, like so many of her sisters, has put on a few too many pounds enjoying the delectable grass from Farmer John's pastures. FJ has put her on a strict diet of no more than $H(5 \leq H \leq 45,000)$ kilograms of hay per day.

Bessie can eat only complete bales of hay; once she starts she can't stop. She has a complete list of the $N(1 \leq N \leq 500)$ haybales available to her for this evening's dinner and, of course, wants to maximize the total hay she consumes. She can eat each supplied bale only once, naturally (though duplicate weight valuess might appear in the input list; each of them can be eaten one time).

Given the list of haybale weights $W_i(1 \leq W_i \leq H)$, determine the maximum amount of hay Bessie can consume without exceeding her limit of H kilograms (remember: once she starts on a haybale, she eats it all).

Input

The first line contains two space-separated integers: H and N After that N lines will follow each describing the weight of haybale i with a single integer: W_i.

Output

Print a single integer that is the number of kilograms of hay that Bessie can consume without going over her limit.

Sample input and output

Input	Output
56 4 15 19 20 21	56