Chef Ninja

Input file:	standard input
Output file:	standard output
Time limit:	1 second
Memory limit:	256 megabytes

There are 'N' carrots and an integer array
to help Chef Ninja to chop down 'M' units
sword and chops down all the carrots at a
help Chef Ninja to set the height of the sv
in one swing of the sword.

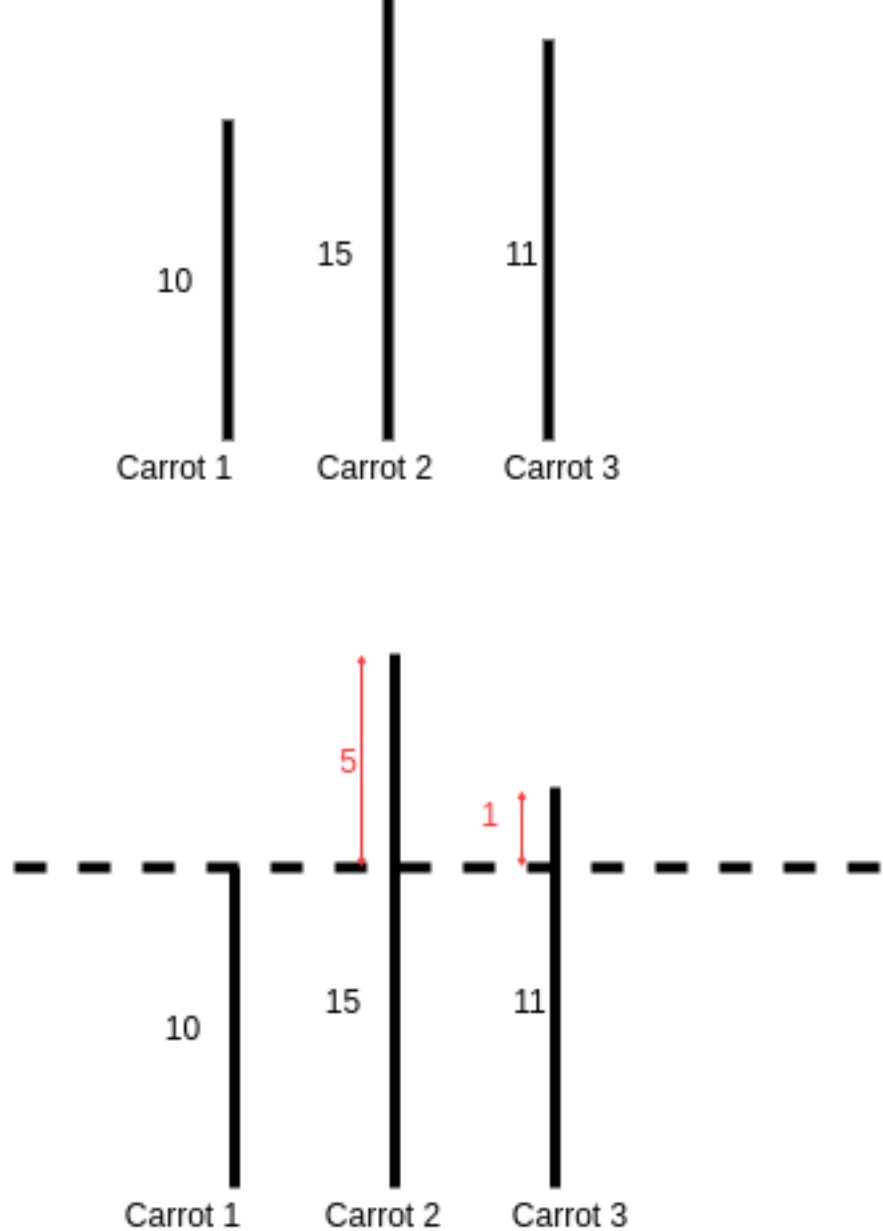**You need to maximize such an H.**

Example:

N = 3

heights[ ] = [10, 15, 11]

M = 6

Result :

H = 10

Input

First line integer 'N'.

Second line contains integer array 'heights[ ]' of size 'N'.

Third line contains integer 'M'

Output

Return 'H'

Examples

standard input	standard output
4 20 15 10 17 7	15
5 4 42 40 26 46 20	36