Tickets

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

It's summertime, and after visiting the mountains, John decided to go to a resort.

The resort requires a ticket pass for each day he will be staying. To enjoy his time, John will not stay at the resort every day - he will only visit the resort on some days d. For example, if $d = \{1, 4, 5\}$, John only needs to have passes for days 1, 4 and 5.

The resort sells tickets in three different ways:

- a **1-day** pass is sold for x dollars;

- a **7-day** pass is sold for y dollars;

- a **30-day** pass is sold for z dollars;

The passes allow that many days of consecutive travel (for example, if John buys a **7-day** pass on the day 3, he can stay at the resort on days 3, 4, 5, 6, 7, 8 and 9). See the samples for clarification.

The tickets can be bought more than once.

What is the minimum amount of money that John needs to have passes for all days listed on d?

Input

The first line contains n $(1 \leq n \leq 300)$ - the length of array d.

The second line contains three integers x, y and z $(1 \leq x, y, z \leq 10^6)$ - the prices of each ticket.

The third and last line contains n sorted integers d_i $(1 \leq d_i \leq 300)$.

Output

Output a single integer: the minimum amount of money needed, if John buys the tickets in an optimal way.

Examples

standard input	standard output
3 5 11 20 1 4 10	15
4 5 10 6 1 32 34 35	11

Note

In the first sample, John buys three **1-day** passes, one for each day.

In the second sample, John buys one **1-day** pass on day 1, and one **30-day** on day 32. Note that this **30-day** pass could be used any day between 32 and 61, if he wanted.