

# Buy Maximum Stocks



In a stock market, there is a product with its infinite stocks. The stock prices are given for  $n$  days, where  $arr[i]$  denotes the price of the stock on the  $i^{th}$  day. There is a rule that a customer can buy at most  $i$  stock on the  $i^{th}$  day. If the customer has an amount of  $k$  dollars initially, find out the maximum number of stocks they can buy?

For example, for 3 days the price of a stock is given as 7, 10, 4. You can buy 1 stock worth 7\$ on day 1, 2 stocks worth 10\$ each on day 2 and 3 stocks worth 4\$ each on day 3. If  $k = 100$ \$, you can buy all the stocks (total 6) for 39\$.

## Input Format

The first line contains an integer  $n$  denoting the number of days.

The next line contains  $n$  space-separated integers where  $i^{th}$  integer denotes the price of the stock on the  $i^{th}$  day. Next line contains a positive integer  $k$  which is the initial amount with the customer.

## Constraints

- $1 \leq n \leq 10^5$
- $1 \leq arr[i] \leq 100$
- $1 \leq k \leq 10^{12}$

## Output Format

Print the maximum number of stock that a customer can buy.

## Sample Input 0

```
3
10 7 19
45
```

## Sample Output 0

```
4
```

## Explanation 0

The customer can purchase 1 stock on day 1, 2 stock on day 2 and 1 stock on day 3 for 10,  $7 \times 2 = 14$  and 19 respectively. Hence, total amount is  $10 + 14 + 19 = 43$  and number of stocks purchased is 4.