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# **Buy Maximum Stocks**



Problem

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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. 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**

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

#### **Output Format**

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

### Sample Input 0

3 10 7 19

#### Sample Output 0

4

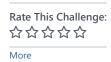
## **Explanation 0**

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

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Contest ends in 9 hours

Submissions: 7137 Max Score: 25 Difficulty: Medium



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