Problem F. Flatland Currency

Input file:	*standard input*
Output file:	*standard output*
Time limit:	2 seconds
Memory limit:	1024 mebibytes

The Flatland currency system uses coins of 500, 100, 50, 10, 5, and 1 Flatland yen.

At the shop in the Flatland airport, there are N bottles of milkohol on sale; the i-th bottle costs a_i yen. Note that there are exactly N **bottles**, so you can buy each bottle no more than once.

You have X flatland yen, and you noticed that the number of coins you have is minimal possible between all representations of X.

In the shop, you can do the following sequence of actions any number of times:

- Select some bottles.

- Pay some of the coins you have for the selected bottles.

- The shop returns the change (if needed) using the least possible number of coins. You may assume that the shop will never go short in any type of coins.

You promised your friends 1-yen coins as souvenirs. Find the maximum number of 1-yen coins that you can collect in this shop.

Input

The first line of input contains two integers N and X ($1 \le N \le 10^5$, $1 \le X \le 10^{14}$): the number of bottles in the shop and the number of Flatland yens you have, respectively. The second line contains N integers $A_1, A_2, \ldots, A_N$ ($1 \le A_i \le 10^9$): the prices of the bottles in the shop.

Output

Print one integer: the maximum number of 1-yen coins you may have after visiting the shop.

Examples

standard input	standard output
5 57 9 14 31 18 27	8
4 50 11 11 11 11	12