

**Challenge name**TECHGIG CODE GRADIATOR

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**Language**C

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**Program detail****Jazzy and Cricket Balls**

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Jazzy is good with bowling but is not good with studies. His mom wants him to focus on studies too and for this she has found an interesting way. Shah has brought **N** packets of balls which may or may not have the same number of balls in them. The balls in a packet are arranged in a linear manner and jazzy wants to play with the balls.

She will give the balls to Jazzy only if he can tell the maximum number of moves required in which he can get to play with all the balls.

There are few conditions though:

1. In one move, Jazzy can divide the number of balls in the packet into an equal number of groups only.  
**Example:** Suppose there are 6 balls in the packet.  
 Jazzy can divide this packet in 3 ways.
  - a. Two groups of 3 balls each (3,3)
  - b. Three groups of 2 balls each (2,2,2)
  - c. Six groups of 1 ball each**Note:** Dividing a single group into multiple groups of equal number is considered one move only.
2. Jazzy can get to play with balls when they are present as a single unit only and not in any group of size greater than 1. Also, getting to play with a ball is considered as move.  
 Example: In a group there are 2 balls, then Jazzy cannot play with them until he further divides them into single-single units.
3. The length of all packets/groups should always be an integer.

**Input format**

The first line of input consists of the number of packets, **N**.

The second line of input consists of N space-separated integers representing the number of balls in the packet (length of the packet), **Ni**.

**Constraints**
 $1 \leq N \leq 100$ 
 $1 \leq N_i \leq 10^{12}$ 
**Output format**

Print the required number of maximum moves to get to play with the balls.

### **Sample testcase**

Input

2

6 1

Output

11

### **Explanation**

For 6 number of balls in a packet, 10 moves are required as explained above.

For 1 ball, only a move is required.

Total number of moves =  $10 + 1 = 11$