

13262 Count Equation Solutions

Count the number of positive integer solutions to the following equation:

$$a_1x_1 - a_2x_2 + a_3x_3 - a_4x_4 + a_5x_5 - a_6x_6 = 0$$

where a_i are integer coefficients, and x_i are the variables such that $1 \le x_i \le M$.

Input

A number of of inputs (≤ 600) described as follows.

The first line is M on a single line, followed by the 6 coefficients ai on the next line. Constraint is $1 \le M \le 100$ and $0 < a_i \le 1000000$.

Output

For each input, output the number of solutions on a single line.

Sample Input

2 1 1 1 1 1 1 1

Sample Output

20