Problem C: Count Equation Solutions Time Limit: 5 seconds

Description

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 (\leq **600**) described as follows. The first line is *M* on a single line, followed by the 6 coefficients *a_i* on the next line. Constraint is $1 \leq M \leq 100$ and $0 < a_i \leq 1000000$.

Output

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

Sample Input

2 1111111

Sample Output

20

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