Combination Of Integers

You will be given n positive integers a_1, a_2, ..., a_n. We say that a nonnegative integer combination of these numbers is of the form a_1*b_1 + a_2*b_2 + ... + a_n*b_n where each of b_1, b_2, ..., b_n is a nonnegative integer. You are to determine how many positive integers cannot be expressed as a nonnegative integer combination of a_1, a_2, ..., a_n.

Input

The first line contains a single integer denoting the number of test cases (about 30). Each test case consists of a single line. The first integer on the line is n, between 1 and 30, which indicates the number of integers a_1, a_2, ..., a_n. Then n integers follow each between 1 and 100,000. The i'th such integer is a_i. All integers on this line are separated by a space.

Output

For each test case you are to output a single line. If there are only a finite number of positive integers that cannot be expressed as a nonnegative integer combination of a_1, a_2, ..., a_n, then you are to output this number. Otherwise, simply output the text "Infinite" (without quotes).

Example

Input:
3
2 2 4
2 4 5
3 11 12 13
Output:
Infinite
6
30
Explanation
Sample Test 2 :
You cannot express 1,2,3,6,7 and 11 using only the integers 4 and 5.

Constraints

1 <= n <= 30
1 <= a_i <= 100000