


Assignment Case	
COMP6047 Algorithm and Programming	
Computer Science	<Case Code>
<i>Valid on Compact Semester Year 2019/2020</i>	Revision 00

Soal*Case***Add and Subtract**

Jojo will be participating in a Mathematic international competition next year. He has done many mathematic difficult problems and one of them is finding how many ways to calculate a desired number from any given numbers using arithmetic operators '+' and '-'. To help Jojo make sure his answer, you are asked by Jojo to make a simple program to find the total ways.

Format Input

The input starts with an integer T , the number of test cases. Each test case starts with number M and N , the target number and how many numbers will be given. Then, it will be followed by N integers A_i , the given numbers.

Format Output

For each test case, print "Case # T :", and followed by how many ways there are to calculate the given numbers.

Constraints

$$1 \leq T \leq 100$$

$$-500,000,000 \leq M, A_i \leq 500,000,000$$

$$1 \leq N \leq 15$$

Sample Input	Sample Output
3 4 4 9 5 6 10 -3 2 9 5 4 3 1 3 2	Case #1: There will be 3 way(s). Case #2: There's no way. Case #3: There will be 2 way(s).

Explanation:

In the first test case:

$$9 - 5 = 4$$

$$- 6 + 10 = 4$$

$$9 + 5 - 10 = 4$$

Therefore, there are 3 way.

Note:

You are encouraged to use recursive to solve this problem.

Don't forget to add the newline character after printing the output.