Go Hangla! Go!

Once upon a time, there was a frog named “Hangla”. “Hangla” lived in a hole. During winter season it remains in the hole, and during summer it comes out for searching food.

But “Hangla” has a special characteristic of jumping. One day it jumps n meters forward towards the gate of the hole, and **after forwarding** it backs m meter backward .

If the size of the hole is k meter , You have to calculate how many days “Hangla” needs to come out from the hole .

Input:

First line indicates the number of test case (1<=t<=100) . Next line there are three inputs (n,m,k). all the inputs fitted into the 0 to 100.

Output:

Print “case cs: f”, where cs indicates the case number and f indicates the total number of day that would be calculated. If “Hangla” cannot come out form the hole , then print “case cs: Impossible” without quotes.

For more clarification see the sample I/O.

Sample Input	Sample Output
3 3 1 4 3 1 26 3 5 10	case 1: 2 case 2: 13 case 3: Impossible

Consider the first case, At first day “Hangla” jumps forward 3 meter and then goes backward 1 meter, so it reaches 2 meter, And second day it comes out from the hole.

At third case it never comes out from the hole, So impossible.

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