Pattern Jumping

Shaggy has a frog Akki. Akki is very hungry and Shaggy decides to feed it by playing a little game. Akki is a special frog which can jump as far as it wants but has a special pattern: He starts at the point 0.

In his first turn, he can make a jump of 1 unit. Now for all consequent turns, if the frog is currently at a distance x (from the start), his jump will take him x units forward. Given a leaf at a distance N , you have to find if the frog can reach that leaf or not.

Input

- The first line contains number of test cases '*T*' followed by '*T*' non-negative integer '*x*' denoting the distance.

Output:

- Output contains *T* line containing,for each test cases ***True*** if the frog Akki can reach that pillar and print ***False*** otherwise.

Constraints:

1<=T<=100
1<=x<=10000

Example:

Input:

3
1
7
64

Output:

True
False
True