



<h1 style="text-align: center;">G</h1>	<h1 style="margin: 0;">Dolphin</h1>
	<b>Time Limit</b> <b>1 second</b>

Dolphin is a well-known ice-breaking activities in Thailand. In order to play this game, everyone has to sit in circle. MC will select one person as a starting player. Each person, in clockwise order, has to shout the correct phrase in the dolphin sequence which is “1 dolphin, 1 jump, splash, 2 dolphins, 2 dolphins, 2 jumps, 2 jumps, splash, splash, 3 dolphins, 3 dolphins, 3 jumps, 3 jumps, 3 jumps, splash, splash, splash, ...” and so on. The game ends when there is one person who shout incorrect phrase. You know that you are  $n$ -th person to shout. As a programmer, you want write a program to calculate the phrase you are going to need to shout out.

### Input

The first line will contain the number of test cases  $T$  ( $1 \leq T \leq 1000$ )

For each test case, there is an input  $n$  ( $1 \leq n \leq 2\,000\,000\,000$ )

### Output

For each test case, print the  $n$ -th phrase in the dolphin sequence.

### Example

Input	Output
5 1 2 3 4 100	1 dolphin 1 jump splash 2 dolphins 8 jumps