Eighth Annual Taylor University Programming Contest Practice

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1 Square Cube

1.1 Problem Description

You are interested in various number properties. For this exercise, you would like to determine if the provided number is a square and/or cube.

1.2 Input

The first line of input will be an integer n. The input set will contain n test cases. Each of the next n lines will contain a single value $x(0 < x \leq 1,000,000)$.

1.3 Output

For each test case, output a single line indicating whether x is a square, cube, both, or neither. The output should match the examples below.

1.4 Example

Input	Output
4	Neither
2	Square
4	Cube
8	Both
64	

2 Draw me a square

2.1 Problem Description

You are planning on drawing many squares for the Square Meetup happening later this weekend. In fact, you will need so many that you will need the computer to help draw them.

2.2 Input

The first line of input will be an integer n. The input set will contain n test cases. Each of the next n lines will contain a number and four characters: l, c, h, v, and i. The value of l is the side length of the square ($0 < l \leq 80$). The value of c is the character to print at the corners of the square. The value of h is the character to print at the top and bottom of the square. The value of v is the character to print at the right and left of the square. The value of i is the character to print inside the square.

2.3 Output

For each test case, output the correctly sized square (l characters per side) using the appropriate characters (c, h, v, and i). Each test case should be separated by a blank line.

2.4 Example

Input	Output
4 4+-|* 3+-|* 2+-|* 1+-|*	+--+ |**| |**| +--+ +-+ |*| +-+ ++ ++ +