**22. Table**

# Program Name: Table.java Input File: table.dat

You are to buy wood in order to build a table to seat enough people. You have a certain amount of money to spend on the wood. The table will consist of two parts: the surface of the table, which is rectangular and 0.5ft thick, and the 4 legs, which are each 3 ft tall. The legs have square bases that will vary in size depending on the size of the table, since a bigger table needs more support. The side of the base of the legs of the table can be given by the equation s=(l+w)/30, where l and w are the length and width of the top of the table. Given the cost of a single cubic foot of wood, and the amount of money you have to spend, can you buy enough wood to make the table?

**Input**

The first line of input will contain a single integer n that indicates how many test cases to follow. Each test case will contain four numbers: l the length of the table, w the width of the table, c the cost of one cubic foot of wood, and m the amount of money you have.

**Output**

Print Success if you can buy enough wood, and Failure if you cannot

**Example Input File**

3

10.0 20.0 1.0 116.0

1.0 1.0 0.0 0.0

25.0 39.0 48.0 264.0

**Example Output to Screen**

Success

Success

Failure