
10. Pyramid Scheme

Program Name: Pyramid.java

Input File: pyramid.dat

Pete is planning on constructing office buildings using a pyramidal architecture. The floor plans of the building must be analyzed to see if the elevations of the building will meet Pete's pyramid criteria. The floor plans have the following features:

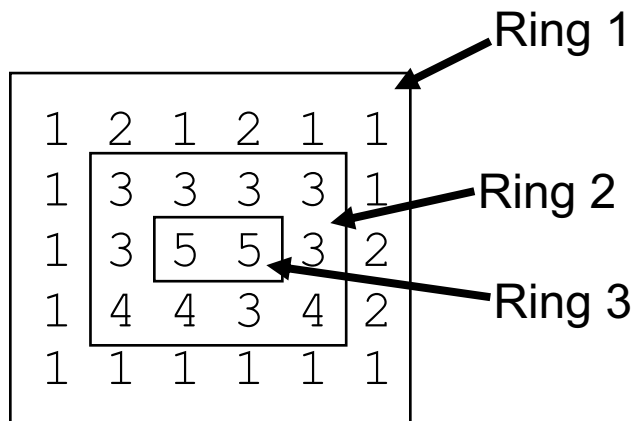
- The building is broken up into one or more concentric rectangular rings.
- Each ring consists of one or more sections.
- Each section has a planned height (elevation), an integer greater than 0.
- Inner rings are completely surrounded by outer rings.
- The overall floor plan of sections and rings is represented as a rectangle of elevations.

Pete's criteria for a correct pyramid do not require every section in a ring be the same height. Instead his criteria require that all of the sections of the outermost ring are lower than all of the sections of the next innermost ring. These criteria must be met by all rings. All sections of a given ring must be higher than all of the sections of the next outermost ring.

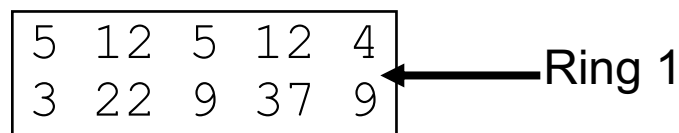
Here is an example of a plan that meets Pete's criteria. Each section's elevation is an integer, separated by a space.

```
1 2 1 2 1 1
1 3 3 3 3 1
1 3 5 5 3 2
1 4 4 3 4 2
1 1 1 1 1 1
```

Here is the same plan with the rings indicated with lines. Notice that every integer in Ring 3 is greater than every integer in Ring 2, and every integer in Ring 2 is greater than every integer in Ring 1.



Here is another example with only one ring.



Input

The first line will contain a single integer n that indicates the number of floor plans to be examined. The first line of each floor plan data set will be two integers r and c , separated by a space. This indicates the number of rows and columns in this floor plan. The next r lines of the data set will consist of c positive integers each, separated by spaces. These integers indicate the elevations of each section for the proposed floor plan.

Output

The output will consist of n lines. For each data set output `BUILD IT` if the floor plan meets Pete's criteria for a pyramid or `SCRAP IT` if the floor plan does not meet Pete's criteria for a pyramid.

Example Input File

```
4
3 4
1 2 3 1
1 2 5 1
1 1 1 1
1 1
12
5 6
11 12 13 14 13 2
13 15 16 16 15 2
11 15 22 22 15 1
11 17 17 15 16 2
11 12 13 14 10 5
2 5
5 12 5 12 4
3 22 9 37 9
```

Example Output to Screen

```
SCRAP IT
BUILD IT
BUILD IT
BUILD IT
```