# 8. Quilt

**Program Name: Quilt.java  Input File: quilt.dat**

Aunt Mabel likes to make quilts but needs some help with her patterns. The squares on the quilt are designed in different colors that, when the squares are sewn together, make a design. Aunt Mabel wants to compare different patterns to her master pattern to see that the new designs match her master pattern with only different colors. Aunt Mabel's patterns are designed in a square of 10 colors by 10 colors.

Aunt Mabel's "master pattern", where each different letter stands for a different color:

```
RRRRRRRRRR
RRRRBBRRRR
RRRRBBRRRR
RRYYYYYYRR
RRRRLLRRRR
RRYYYYYYRR
RRRRXARRRR
RRSSDDSSRR
RRUUUUUURR
RRRRRRRRRR
```

This is a "test pattern" that Aunt Mabel needs to have checked to see if it is the same pattern with different colors:

```
ZZZZZZZZZZ
ZZZZBBZZZZ
ZZZZBBZZZZ
ZZRRRRRRZZ
ZZZZLLZZZZ
ZZRRRRRRZZ
ZZZZXCZZZZ
ZZSSDDSSZZ
ZZOOOOOOZZ
ZZZZZZZZZZ
```

These two patterns are considered to be the "same" because for every color in the master pattern, there is a corresponding color in the same position in the test pattern. For example, for each `R` in the master pattern, there is a corresponding `Z` in the same position (row and column) in the test pattern and there are no other `Z`'s in the test pattern. Similarly, all of the `B`'s in the master pattern correspond to all of the `R`'s in the test pattern, and so forth. If there is at least one character in the test pattern that does not match the master pattern, the test pattern is not the same as the master pattern.

You are to write a program that will check a series of test patterns to see if they are the "same" as the given master pattern.

**Input**

- The first line of input will contain a single integer `m` that indicates the number of master patterns to follow.
- For each master pattern `m`:
  - The first 10 lines of input will each contain 10 consecutive upper-case letters of the alphabet, representing the master pattern itself.
  - The next line will contain a single integer `n` representing the number of 10 x 10 test patterns to follow.
  - Each test pattern will contain 10 lines with 10 consecutive upper-case letters of the alphabet on each line.

**Output**

For each test pattern, you will print "`SAME`" if the test pattern is the "same" as the master pattern or "`NOT SAME`" if they are not the "same".

# 8. Quilt (cont.)

**Example Input File**

```
2
RRRRRRRRRR
RRRRBBRRRR
RRRRBBRRRR
RRYYYYYYRR
RRRRLLRRRR
RRYYYYYYRR
RRRRXARRRR
RRSSDDSSRR
RRUUUUUURR
RRRRRRRRRR
2
ZZZZZZZZZZ
ZZZZBBZZZZ
ZZZZBBZZZZ
ZZRRRRRRZZ
ZZZZLLZZZZ
ZZRRRRRRZZ
ZZZZXCZZZZ
ZZSSDDSSZZ
ZZOOOOOOZZ
ZZZZZZZZZZ
AAAAAAAAAA
AAAABBAAAA
AAAABBAAAA
AAQQQQQQAA
AAAALLAAAA
AAQQQQQQAA
AAAAZCAAAA
AASSDDSSAA
AAOOOOOOAA
AAAAAAAAAA
XXXXXXXXXX
XXXXXXXXXX
XXXXXXXXXX
XXXXXXXXXX
XXXXXXXXXX
XXXXXXXXXX
XXXXXXXXXX
XXXXXXXXXX
XXXXXXXXXX
1
XXXXXXXXXX
XXXXXXXXXX
XXXXXXXXXX
XXXXXXXXXX
XXXXXXXXXX
XXXXOXXXXX
XXXXXXXXXX
XXXXXXXXXX
XXXXXXXXXX
XXXXXXXXXX
```

**Example Output to Screen** (see next page)

# 8. Quilt (cont.)

**Example Output to Screen**

```
SAME
SAME
NOT SAME
```