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The Virtual Learning Environment for Computer Programming

# **Chess attack**

You are given pairs of chess pieces with locations; for each pair, you are to output *true* if the first piece can attack the second, and *false* otherwise.

## Input

A number  $n \ge 1$ , followed by *n* pairs of pieces.

Each piece is specified in the following format: *type x y*. *Type* is a character: K for king, Q for queen, R for rook, B for bishop, and N for knight. *x* and *y* are ints such that  $0 \le x \le 7$  and  $0 \le y \le 7$ ; they specify the *x* and *y* coordinates of the piece's position on the chessboard. In each pair, the two pieces are guaranteed to be in different positions.

## Output

For each pair, output *true* if the first piece can attack the second, and *false* otherwise. Refer to Wikipedia (or another internet source) for information on how each of the pieces behave.

## Observation

#### Sample input

4 Q 2 3 Q 3 5 Q 2 3 Q 4 5 B 1 1 K 2 3 N 1 1 K 2 3

#### Sample output

false
true
false
true

## **Problem information**

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