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## Chess attack

X79963\_en

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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  $n \geq 1$ , 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  $0 \leq x \leq 7$  and  $0 \leq y \leq 7$ ; 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 1

```
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 1

```
false
true
false
true
```

### Problem information

Author: Hubie Chen

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