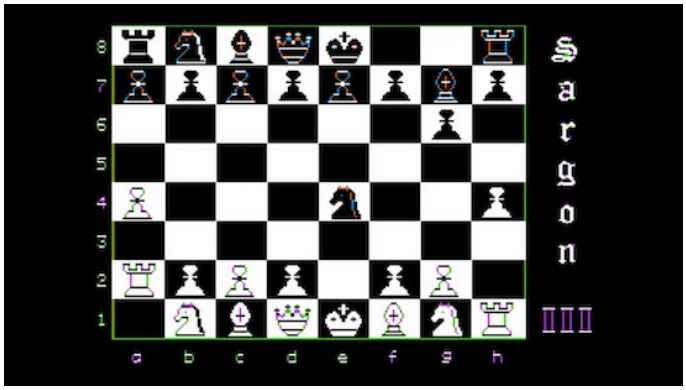
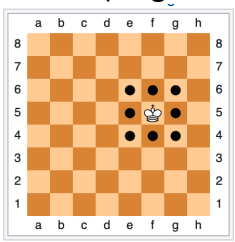


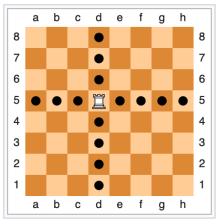
Objective

You are not very good at chess. To help you, Blue decides to introduce you to a variant of the game in order to work your game ends. The "Rooks" chess is played out as follows:

- One of the players has only one piece, a king, designated by the letter R, white, who can move one square in any direction (diagonals included).



- The opposing player has only Rooks (potentially more than two), designated by the letter T, black, which can move from any number of squares, but only by staying on the same row or on the same column.



- Each piece (the king or a rook) can take the possible piece on the square to which it moves.

You are given an 8x8-square game board, with the positions of each piece on it. You must indicate at this precise moment (knowing that it is up to the whites to play), what the situation is, namely:

- still-in-game: if the king can still move to a square where he will not be caught during the next round.
- check-mat: if the king can only move to squares where he will be caught during the next round and he is "chess" on the present situation (i.e. he would also be caught during the next round if he did not move).
- pat: if the king can only move to squares where he will be taken on the next round and is not "chess" in the present turn (i.e. he would not be taken in the next round if he did not move).

Data format

Input

Rows 1 to 8: 8 characters *R, T* or *.* where R represents the King, T a Rooks and.

Output

The string *still-in-game* or *check-mat* or *pat* in function the situation of the chess board.

Example

Input

```
........
........
........
.. T.....
.. TR....
.... T...
........
........
```

Output

```
still-in-game
```

Indeed, if the king moves diagonally down - right. He will take the Rooks and the remaining two Rooks will not be able to catch him during the next round.

Input

```
T..R....
T.......
........
........
........
........
........
........
```

Output

```
check-mat
```

If the king does not move, he will be caught by the Rook on the first row and wherever he can move he will be caught by one of the Rooks.