Questions asked 4

Submissions

Cube IV

8pt	Not attempted **1708/2380 users** correct (72%)
15pt	Not attempted **1492/1679 users** correct (89%)

GBus count

9pt	Not attempted **2048/2354 users** correct (87%)
15pt	Not attempted **1865/2018 users** correct (92%)

Sort a scrambled itinerary

11pt	Not attempted **1623/1914 users** correct (85%)
15pt	Not attempted **1483/1602 users** correct (93%)

Itz Chess

12pt	Not attempted **654/1008 users** correct (65%)
15pt	Not attempted **393/622 users** correct (63%)

Top Scores

dreamoon	100
Kriiii	100
Balajiganapathi	100
uws933	100
NExPlain	100
culaucon	100
fahimzubayer18	100
pattara.s	100
buaamm	100
lijiancheng	100

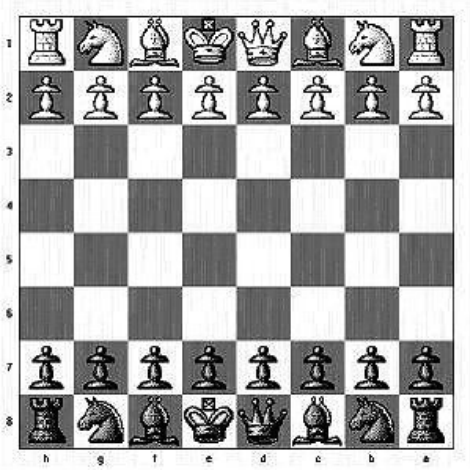
Problem D. Itz Chess

This contest is open for practice. You can try every problem as many times as you like, though we won't keep track of which problems you solve. Read the Quick-Start Guide to get started.

Small input 12 points	Solve D-small
Large input 15 points	Solve D-large

Problem

Given an arranged chess board with pieces, figure out the total number of different ways in which any piece can be killed **in one move**. Note: in this problem, the pieces can be killed despite of the color.



For example, if there are 3 pieces King is at B2, Pawn at A1 and Queen at H8 then the total number of pieces that an be killed is 3. H8-Q can kill B2-K, A1-P can kill B2-K, B2-K can kill A1-P

A position on the chess board is represented as A1, A2... A8,B1.. H8

Pieces are represented as

- (K) King can move in 8 direction by one place.
- (Q) Queen can move in 8 direction by any number of places, but can't overtake another piece.
- (R) Rook can only move vertically or horitonzally, but can't overtake another piece.
- (B) Bishop can only move diagonally, but can't overtake another piece.
- (N) Knights can move to a square that is two squares horizontally and one square vertically **OR** one squares horizontally and two square vertically.
- (P) Pawn can only kill by moving diagonally upwards (towards higher number i.e. A -> B, B->C and so on).

Input

The first line of the input gives the number of test cases, **T**. **T** Test cases follow. Each test case consists of the number of pieces , **N**. **N** lines follow, each line mentions where a piece is present followed by **-** with the piece type

Output

For each test case, output one line containing "Case #x: y", where x is the test case number (starting from 1) and y is the the total number of different ways in which any piece can be killed.

Limits

$1 \leq \mathbf{T} \leq 100$.

Small dataset

$1 \leq \mathbf{N} \leq 10$.
Pieces can include K, P

Large dataset

$1 \leq \mathbf{N} \leq 64$.

Sample

Input	Output
2 A1-K A8-Q 3 B2-K A1-P H8-Q	Case #1: 1 Case #2: 3