Ranka

Problem code: RANKA

Read problems statements in Mandarin Chinese and Russian.

There is an ancient legend in China called Ranka

(Content taken from wikipedia)
Wang Chih was a hardy young fellow who used to venture deep into the mountains to find suitable wood for his axe.
One day he went farther than usual and became lost. He wandered about for a while and eventually came upon two strange old men
who were playing Go, their board resting on a rock between them. Wang Chih was fascinated. He put down his axe and began to watch.
One of the players gave him something like a date to chew on, so that he felt neither hunger nor thirst. As he continued to watch he
fell into a trance for what seemed like an hour or two. When he awoke, however, the two old men were no longer there.
He found that his axe handle had rotted to dust and he had grown a long beard. When he returned to his native village he discovered
that his family had disappeared and that no one even remembered his name.

So how could that happen? Well, that's because the game "Go" can played very long.

Let's first define the game "Go":

In this game, we focus on the game played on a 9x9 board. It is a game played by 2 players.
A plays black stone while B plays white. They play alternatively. A goes first.
In each cell there can be 3 states: empty, having 1 black stone and having 1 white stone.

If we link the same color stones which are neighbourhood (|x1-x2| + |y1-y2| = 1), we can get some connected component.
We say a connected component is dead if no stone in it has an empty neighbourhood cell.

In each move, the player must put the stone on an empty cell or pass the turn. If this player put a stone, following situation will
happen.

- If after this move there is at least one connected component of opponent dead, then stones from these dead components
will be removed. (In this case, after remove all dead components of your opponent, we can prove all your connected component are not dead.)
- Otherwise, if there are at least one connected component of yours dead, then this move is invalid.

In order to avoid infinite loops, there is a rule called "No same state". The state of board can be expressed as a string with length 82:
the first character indicate who is the next player, then 9*9 character indicate the state of a certain cell. If after one move the game
goes into a state that previously occurred, then this move is invalid.

You are given an integer N. Please output a match that contains N valid moves for both player.

You can find details for the rules in the judge program
here.

Input

Only line of input will contain an integer denoting **N**.

Output

You must output N lines.
If the player uses "pass" at that step, then output "0 0", otherwise output the coordinate "x y" where $1 \le x,y \le 9$.

Constraints and Subtasks

- Subtask1 (20 points) : **N = 5000**
- Subtask2 (80 points) : **N = 10000**

Example

Input:
12

Output:
1 1
2 1
2 2
1 2
1 3
2 3
1 1

SUCCESSFUL SUBMISSIONS

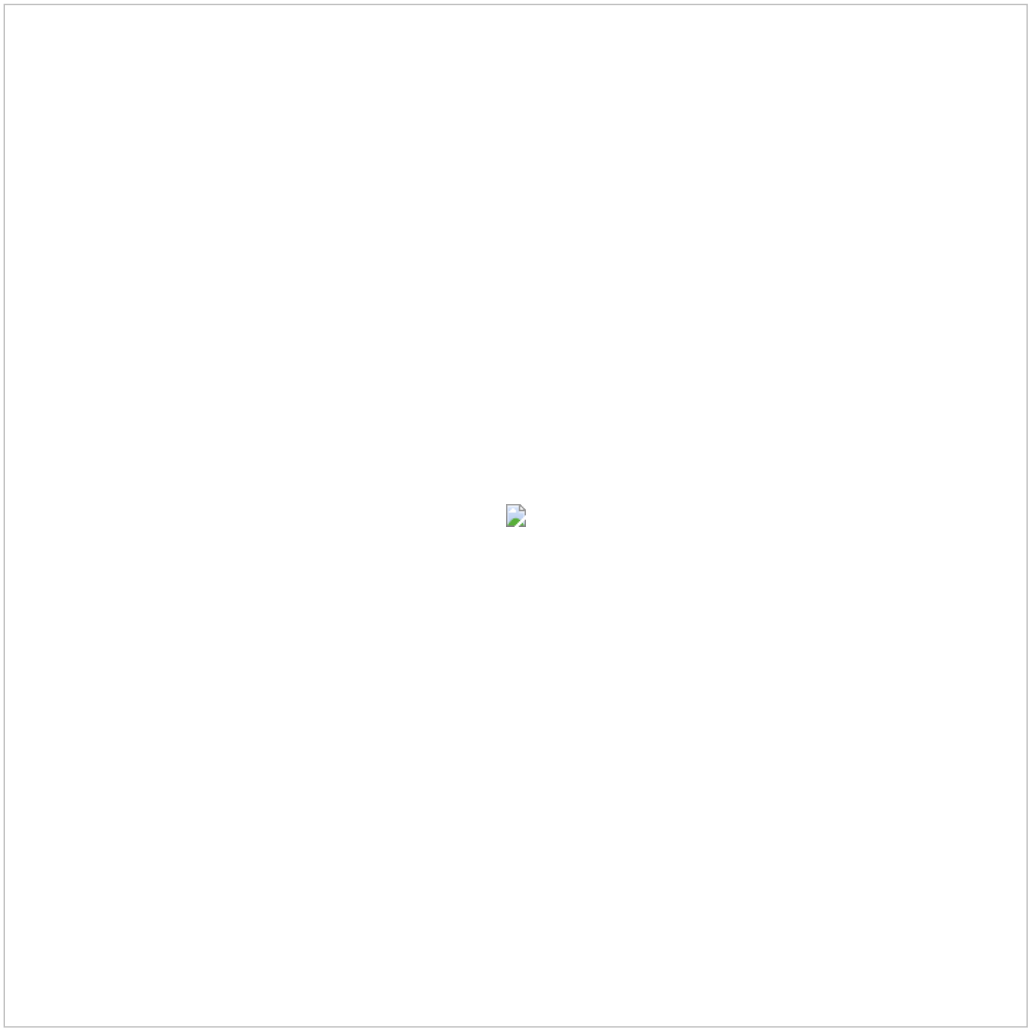
User	Score	Mem	Lang	Solution
alex_2oo8	100.000	0.2M	PAS fpc	View
shuxxkk	100.000	0.2M	PAS fpc	View
pulkit	100.000	1.6M	TEXT	View
lg5293	100.000	1.6M	TEXT	View
odule	100.000	1.6M	TEXT	View
akash4983	100.000	1.6M	TEXT	View
cyberax	100.000	1.6M	TEXT	View
randomusername	100.000	1.6M	TEXT	View
amitsaharana	100.000	1.6M	TEXT	View
abhay26	100.000	1.6M	TEXT	View
code_note	100.000	1.6M	TEXT	View
nikdon1993	100.000	1.6M	TEXT	View

1 of 9 Next »

3 2
0 0
1 2
9 9
2 2

Examples

Here are some examples:
You can see the image at this link if itis not properly visible in your browser.



Author:	cgy4ever
Tester:	shiplu
Date Added:	12-12-2014
Time Limit:	1 sec
Source Limit:	50000 Bytes
Languages:	ADA, ASM, BASH, BF, C, C99 strict, CAML, CLOJ, CLPS, CPP 4.3.2, CPP 4.8.1, CPP11, CS2, D, ERL, FORT, FS, GO, HASK, ICK, ICON, JAVA, JS, LISP clisp, LISP sbcl, LUA, NEM, NICE, NODEJS, PAS fpc, PAS gpc, PERL, PERL6, PHP, PIKE, PRLG, PYTH, PYTH 3.1.2, RUBY, SCALA, SCM guile, SCM qobi, ST, TCL, TEXT, WSPC

SUBMIT

Comments

deepakgupta13 *@ 2 Jan 2015 08:35 PM*

Image not visible. Link also not working. AccessDeniedAccess Denied12A76DF0C5C2DE1AOewgTrYzXoCMSpbzuJqESRhs/NI+o2j7iV+qagXApFYv+H01/l/g3BYPNFRKFk1rNFKYnlhydZk=

dpraveen *@ 2 Jan 2015 09:41 PM*

@deepakgupta13: It is visible to me. There must be some issue on your side.

cgy4ever *@ 2 Jan 2015 10:41 PM*

@deepakgupta13: Try this one: http://puu.sh/dXMdZ/d80726bf53.png

Need help? Post a comment. But before that please spare a moment to read the guidelines.

Your name:
henviso

Comment: *

Save

CodeChef - A Platform for Aspiring Programmers

CodeChef was created as a platform to help programmers make it big in the world of algorithms, **computer programming** and **programming contests**. At CodeChef we work hard to revive the geek in you by hosting a **programming contest** at the start of the month and another smaller programming challenge in the middle of the month. We also aim to have training sessions and discussions related to **algorithms, binary search**, technicalities like **array size** and the likes. Apart from providing a platform for **programming competitions**, CodeChef also has various algorithm tutorials and forum discussions to help those who are new to the world of **computer programming**.

Practice Section - A Place to hone your 'Computer Programming Skills'

Try your hand at one of our many practice problems and submit your solution in a language of your choice. Our **programming contest** judge accepts solutions in over 35+ programming languages. Preparing for coding contests were never this much fun! Receive points, and move up through the CodeChef ranks. Use our practice section to better prepare yourself for the multiple **programming challenges** that take place through-out the month on CodeChef.

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Here is where you can show off your **computer programming** skills. Take part in our 10 day long monthly **coding contest** and the shorter format Cook-off **coding contest**. Put yourself up for recognition and win great prizes. Our **programming contests** have prizes worth up to Rs.20,000 and $700lots more CodeChef goodies up for grabs.

Discuss

Are you new to **computer programming**? Do you need help with algorithms? Then be a part of CodeChef's Forums and interact with all our programmers - they love helping out other programmers and sharing their ideas. Have discussions around **binary search, array size, branch-and-bound, Dijkstra's algorithm, Encryption algorithm** and more by visiting the CodeChef Forums and Wiki section.

CodeChef Community

As part of our Educational initiative, we give institutes the opportunity to associate with CodeChef in the form of Campus Chapters. Hosting **online programming competitions** is not the only feature on CodeChef. You can also host a **coding contest** for your institute on CodeChef, organize an **algorithm** event and be a guest author on our blog.

Go For Gold

The Go for Gold Initiative was launched about a year after CodeChef was incepted, to help prepare Indian students for the **ACM ICPC** World Finals competition. In the run up to the **ACM ICPC** competition, the Go for Gold initiative uses CodeChef as a platform to train students for the **ACM ICPC** competition via multiple warm up contests. As an added incentive the Go for Gold initiative is also offering over Rs.8 lacs to the Indian team that beats the 29th position at the **ACM ICPC** world finals. Find out more about the Go for Gold and the **ACM ICPC** competition here.