

05 Hr **55** Min
47 Sec**Guidelines**

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Coding Area

A**B****C****D****E****F****ONLINE EDITOR (E)**

Friend Circle

+ Problem Description

2N friends (A,B,C... , 2N) are standing in a circle. There is exactly one person standing opposite of one other person. Some of them are facing inwards and some of them are facing outwards. Here given some facts your task is to build the standing positions and answer a few Questions. If the arrangement is not possible or more than one arrangement is possible, then print "ARRANGEMENT NOT POSSIBLE".

The formats of *Facts & Questions* and its meanings are as follows.

Facts

"1AB" means : A and B are standing adjacent to each other

"2AB" means : A and B are standing opposite to each other

"3AB" means : A is standing to the immediate left of B

"4AB" means : A is standing to the immediate right of B

"5A" means : A is facing inwards

"6A" means : A is facing outwards

"7n" means : n people are facing inwards, where n is a number

"8n" means : n people are facing outwards, where n is a number

Questions

"?2A" means : who is standing opposite of A?

"?3A" means : who is standing to the immediate left of A?

"?4A" means : who is standing to the immediate right of A?

"?5A" means : is A facing inwards? Ans:Y/N

"?6A" means : is A facing outwards? Ans:Y/N

+ Constraints

$1 < N < 10$

$1 < \text{Total Facts} < 30$

$1 < \text{Total Questions} < 20$

+ Input Format

N Multiple facts, separated by semicolon multiple questions, separated by semicolon

+ Output

Answers, separated by semicolon corresponding to order of questions OR "ARRANGEMENT NOT POSSIBLE"

+ Test Case

+ Explanation

Example 1

Input

2
2AB;72;1AC;6D;4BD;6C
?2D;?3C;?4B;?5A;?6B

Output

C;B;D;Y;N

Explanation

4 people- A, B, C and D are standing in circle.

There are 6 facts separated in semicolons:

2AB ==> A and B are standing opposite

72 ==> 2 people are facing inwards

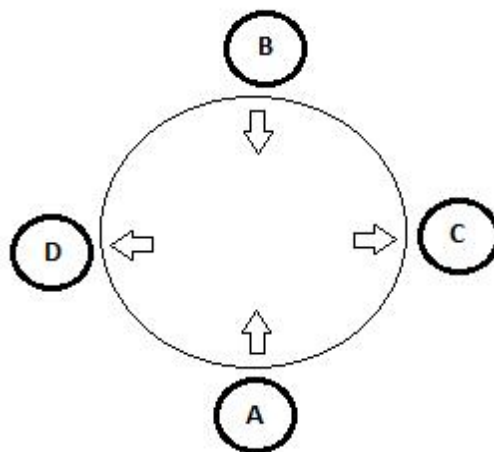
1AC ==> A and C are standing nearby

6D ==> D is facing outwards

4BD ==> B is standing immediate right of D

6C ==> C is facing outwards

From the above facts, we can build the standing positions as below image:



There are 5 questions:

?2D ==> who is standing opposite of D? Ans:C

?3C ==> who is standing immediate left of C? Ans:B
?4B ==> who is standing immediate right of B? Ans:D
?5A ==> is A facing inwards? Ans:Y
?6B ==> is B facing outwards? Ans:N
Finally printing all answers in a single line separated by semicolon.

Example 2

Input

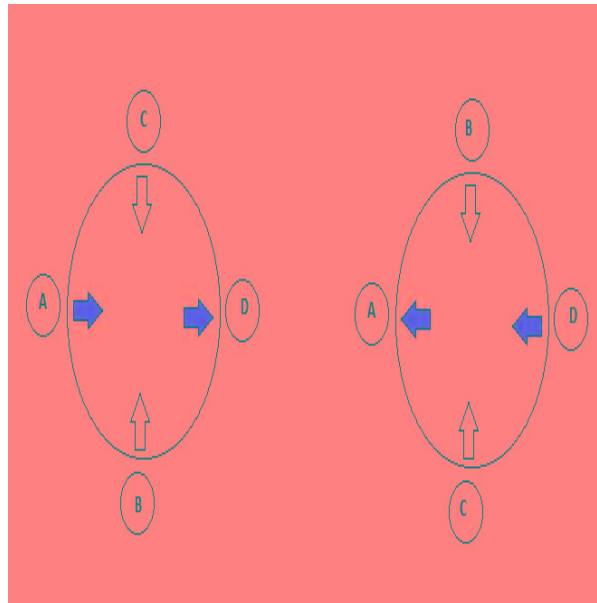
2
4BA;3CA;3CD;5C;5B
?5A;?3D;?4C;?6B

Output

ARRANGEMENT NOT POSSIBLE

Explanation

We can arrange 4 people in two different ways as the image below, from the facts provided. Directions of A and D can be set differently.



Upload Solution [Question : E]

☐ I, **ayush saraswat** confirm that the answer submitted is my own.

☐ Took help from online sources (attributions)

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