
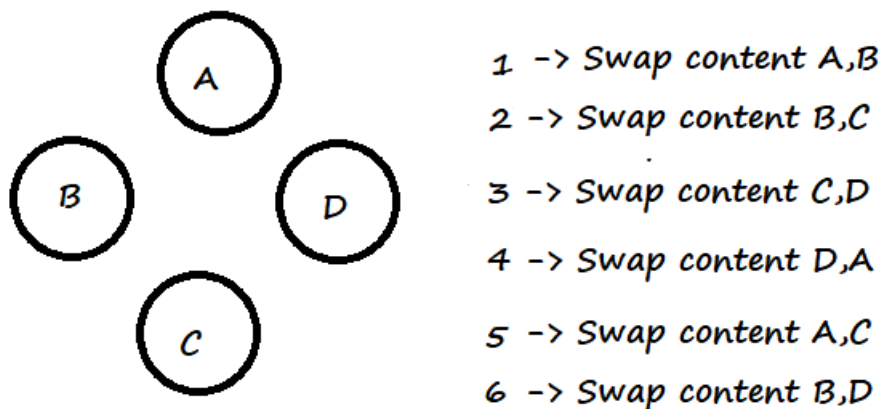


Assignment Case	
COMP6047 Algorithm and Programming	
Computer Science	<Case Code>
<i>Valid on Compact Semester Year 2018/2019</i>	Revision 00

Soal*Case***Find The Ball**

Jojo is interested in memory games. Given the advantages, you were asked to join her in a game called “Switching Balls”. Long story short, the aim for this game is that, you need to figure out the location of the ball. The game starts with a ball and 4 bucket, align clearly like the following figure :



Note that the ball always placed inside bucket B at the very start of each game.

Format Input

The first line consist of a single integer N. N indicates the number of test cases.

For each test case, there will be two integers K and A, where K indicates the number of given number and A indicates the number of swap

For the next K line, it consists of positive A_{th} number

Format Output

For each test case, output the answer with format “Case #T : B”, where T is the number of test cases and B is the location of the ball at the end of the game.

Constraints

- $1 \leq N \leq 100$
- $1 \leq K \leq 1000$
- $1 \leq A \leq 6$

Sample Input	Sample Output
3	Case #1 : B Case #2 : D Case #3 : B
4	
3 3 4 5	
7	
2 1 3 4 5 3 2	
6	
1 1 2 2 3 3	

Explanation

Test Case #3:

1 1 2 2 3 3

1	Ball	-	-	-
	A	B	C	D
1	-	Ball	-	-
	A	B	C	D
2	-	-	Ball	-
	A	B	C	D
2	-	Ball	-	-
	A	B	C	D
3	-	Ball	-	-
	A	B	C	D
3	-	Ball	-	-
	A	B	C	D