

## Problem 6—Leap Frog

One of the rare nonfatal games the tributes enjoy is Leap Frog. Oh, did I say nonfatal? It's nonfatal if they do it right. If they do it wrong, all of the participating tributes are destroyed by land mines. The game is played with  $n$  boys and  $n$  girls. The boys line up on the left, and the girls line up on the right. There is space for one person between the boys and the girls. The game is played as follows.

1. The first player to move must be a boy.
2. Each move consists of either a player adjacent to the space moving to the space OR a player leaping over one player of the other sex into the space.
3. The game ends when the boys and girls have completely switched places, with the girls on the left and the boys on the right.
4. Counting the initial and final positions, the total number of positions in the game must be *exactly*  $(n+1)^2$ .

It's vitally important that everyone make the correct move at the correct time. If even one move is wrong, everyone dies! Given the number of districts participating ( $n$ ), you are to print the list of moves necessary for survival.

**INPUT SPECIFICATION.** The input is divided into a number of cases. Each case will consist of an unsigned positive decimal integer representing the number of districts. A zero will follow the last case. There may be any number of spaces or <EOLN>'s before, after, or between the input cases.

**OUTPUT SPECIFICATION.** The output cases should be in the same order as the input cases. A complete specification would be pointless. Just follow the example. Be sure to make note of the case number and the extra <EOLN> after each case.

### **SAMPLE INPUT.**

```
1<EOLN>
2<EOLN>
0<EOLN>
<EOF>
```

### **SAMPLE OUTPUT.**

```
Case ·1<EOLN>
<EOLN>
B ·G<EOLN>
·BG<EOLN>
GB ·<EOLN>
G ·B<EOLN>
<EOLN>
Case ·2<EOLN>
<EOLN>
BB ·GG<EOLN>
B ·BGG<EOLN>
BGB ·G<EOLN>
BGBG ·<EOLN>
BG ·GB<EOLN>
·GBGB<EOLN>
G ·BGB<EOLN>
GGB ·B<EOLN>
GG ·BB<EOLN>
<EOLN>
<EOF>
```