

Dice Golf

Program Name: `golf.java`

Input File: `golf.dat`

Here's a fun little 2-player dice game you can play to pass the time: The object of the game is to advance your peg to the tenth hole or beyond. Both players start their peg in the first hole, and taking turns rolling the dice, either advance or move back their pegs, depending on their roll. Each of the possible roll's values are:

Roll	Value	Description
2	+9	Hole in one
3	-2	Sand trap
4	+2	On the green
5	+2	Long drive
6	+1	On the fairway
7	-3	Water hazard
8	+1	On the fairway
9	-2	In the rough
10	-2	Slice
11	+1	Nice chip shot
12	+1	Nice chip shot

Notes:

- It is not possible to move back beyond the first hole; any roll that would take a player backwards past the first hole takes the player's peg to the first hole instead.
- Any roll that would take a player to the tenth hole or beyond is a win for that player and the game is considered over.
- Player 1 always rolls first.

Input

Input to this problem will consist of a (non-empty) series of up to 100 data sets. Each data set will be formatted according to the following description, and there will be **no blank lines** separating data sets.

Each data set represents a game and has 2 lines:

1. *Number of rolls* - A single integer, N , the number of rolls in the game. $1 \leq N \leq 20$.
2. *Rolls* - A list of N integers delimited by a single space. Each roll will be $2 \leq X \leq 12$. Since Player 1 always rolls first, the first integer represents Player 1's first roll, the next integer represents Player 2's first roll (if he has one), the next integer represents Player 1's second roll (if he has one), and so on. There may be more rolls in the input than are necessary to determine the winner.

Note that the number of data sets is not explicitly given.

Output

Output will be a single line with the phrase: "Player X wins!", where X is the number of the player who won. Every game will have a winner.

Example Input File

```
2
2 2
3
3 5 2
15
6 3 8 5 12 4 4 4 4 5 11 4 5 2 7
```

Example Output To Screen

```
Player 1 wins!
Player 1 wins!
Player 2 wins!
```