

CCC '03 S1 - Snakes and Ladders

Time limit: 2.0s Memory limit: 256M

Canadian Computing Competition: 2003 Stage 1, Junior #3, Senior #1

Here (see illustration) is a game board for the game Snakes and Ladders. Each player throws a pair of dice to determine how many squares his/her game piece will advance. If the piece lands on the bottom of a ladder, the piece moves up to the square at the top of the ladder. If the piece lands on the top of a snake, the piece "slides" down to the square at the bottom of the snake. If the piece lands on the last square, the player wins. If the piece cannot advance the number of squares indicated by the dice, the piece is not moved at all.

In order to help you play this game via a cell phone while travelling, you will write a program that simulates your moves on the board shown and, of course, runs on your handheld computer. You will repeatedly throw the dice and enter the result into the program. After each throw, the program will report the number of the square where your piece lands.

100	99	98	97	96	95	94	93	92	91	
81	82	84	85	86	87	88	89	90		
80	79	78	77	76	75	74	73	72		
61	62	63	64	65	66	67	68	70		
60	59	58	57	56	55	54	53	52	51	
40	41	42	43	44	45	46	47	48	49	50
40	39	38	37	36	35	34	33	32	31	
21	22	23	24	25	26	27	28	29	30	
20	19	18	17	16	15	14	13	12	11	
1	2	3	4	5	6	7	8	9	10	

When the program starts it should assume the piece is on square 1. It should repeatedly read input from the user (a number between 2 and 12) and report the number of the square where the piece lands. In addition, if the piece moves to the last square, the program should print `You Win!` and terminate. If the user enters 0 instead of a number between 2 and 12, the program should print `You Quit!` and terminate.

For clarity, you are to use the board pictured above and you should note that the board has 3 snakes (from 54 to 19, from 90 to 48 and from 99 to 77) and 3 ladders (from 9 to 34, from 40 to 64 and from 67 to 86).

Sample Input

9
11
12
7
3
5
10
9

Sample Output

```
You are now on square 10  
You are now on square 21  
You are now on square 33  
You are now on square 64  
You are now on square 86  
You are now on square 91  
You are now on square 91  
You are now on square 100  
You Win!
```