

# COCI '13 Contest 3 #1 Riječi

---

**Time limit:** 1.0s    **Memory limit:** 32M

---

One day, little Mirko came across a funny looking machine! It consisted of a very very large screen and a single button. When he found the machine, the screen displayed only the letter **A**. After he pressed the button, the letter changed to **B**. The next few times he pressed the button, the word transformed from **B** to **BA**, then to **BAB**, then to **BABBA**. When he saw this, Mirko realized that the machine alters the word in a way that all the letters **B** get transformed to **BA** and all the letters **A** get transformed to **B**.

Amused by the machine, Mirko asked you a very difficult question! After  $K$  times of pressing the button, how much letters **A** and how much letters **B** will be displayed on the screen?

## Input Specification

---

The first line of input contains the integer  $K$  ( $1 \leq K \leq 45$ ), the number of times Mirko pressed the button.

## Output Specification

---

The first and only line of output must contain two space-separated integers, the number of letters **A** and the number of letters **B**.

## Scoring

---

In test data worth 20% of total points,  $K$  will be less or equal to 10.

## Sample Input 1

---

```
1
```

## Sample Output 1

---

```
0 1
```

## Sample Input 2

---

```
4
```

## Sample Output 2

---

2 3

## Sample Input 3

---

10

## Sample Output 3

---

34 55