

1.

:
  
:
  
:
  
:dance.in
  
dance.out
  
2
  
64
  
100 $n$  —

?

 $n(1 - n^{-10^6})$ 

a b ( a

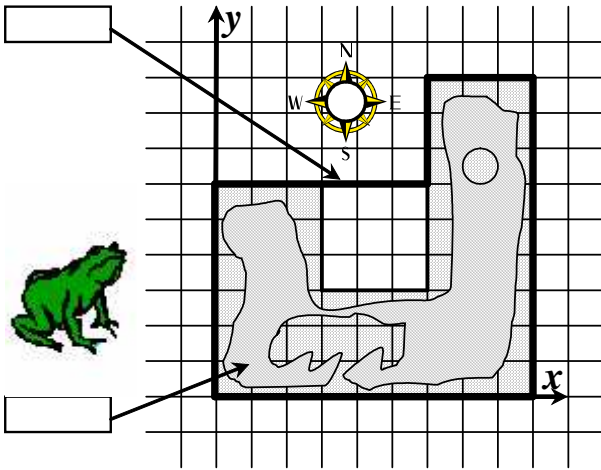
b — ).

dance.in	dance.out
3 bab	2
8 abbababa	13

2.

```
swamp.in  
swamp.out  
2  
64  
100
```

1 × 1 .



$n$  ) .  $n$  —  $n$  — (4  $n$  100 000,  $10^9$ )

swamp.in	swamp.out
8	6
0 0	0 0
9 0	9 0
9 9	9 9
6 9	6 9
6 3	6 6
3 3	6 6
3 6	0 6
0 6	

**4.**

```

: lucky.in
: lucky.out
: 2
: 64
: 100

```

$d(d-2)$ ,  $n$ ,  $n$ ,  $d$ ,  $k$ .  
 $n$ ,  $d$ ,  $n$ ,  $k$ ,  $d$ ,  
 $n$ ,  $k$ .

$$n \cdot k(1 - n \cdot 10^{11}; 0 \cdot k \cdot 9).$$

$d$ ,  $k$ ,  $: d -$ ,  $l -$   
 $n \cdot 10^{12} ($   $).$

lucky.in	lucky.out	
49 1	3 2	$49_{10} = 1211_3$
7 5	3 0	7 5

5.

```

topcoder.in
topcoder.out
2
64
100

```

$2^k$

$1 \ 2^k$

$n$

$m$

$k (1 \leq k \leq 60), n (0 \leq n \leq 100\,000)$

$m (1 \leq m \leq 100\,000)$ .

$n$

$n$

$x \ y, \ y \ x$

$x \ y$ .

$m$

$1 \ k$ .

topcoder.in	topcoder.out	
2 0 3 1 3 4	2 2 2	
3 1 1 3 1 1	3	
3 3 4 1 2 1 3 4 1 1 2 3 4	3 1 2 3	

**6. -2014**

olymp.in  
 olymp.out  
 2  
 64  
 100  
 N

K

N —

(1 N 50).

$S_1, S_2, S_3, \dots, S_N$   
 $S_i$

1000.

K —

(1 K 50).

$V_1, V_2, V_3, \dots, V_K$

$V_j$

1000.

T —

$t, i, j$

t —

i —

j —

t.

olymp.in	olymp.out
2	8.800
24 20	0 1 1
2	0 2 2
3 2	6.4000000 1 2
	6.4000000 2 1
3	12.00000
100 100 100	0 1 3
4	0 2 4
5 5 10 10	0 3 1
	4 2 2
	4 3 4
	8 1 1
	8 3 4
	8 2 3