

1.

: 1
: 256

11-

B, C, E, H, K, M, O, P, T, X Y).

(A,

Y034PA	1728000
--------	---------

1 (30)

8

2 (30)

16

3 (40)

100

2.

: 1
: 256

- A , - B .
N

N, A B.

N

1

34 3 7	2
--------	---

2

56 14 7	2
---------	---

1 (30)
N 10^3 , A B, N B, B A

2 (30)
N 10^9 , 5000 $\max(A, B)$ 10^5

3 (40)
N 10^{15} , A, 10^9 , B 10^9 , $\min(A, B)$ 10^5

3.

$$\sum_{i=1}^N (r_i - m_i)^2$$

RockGroup1

$$N : \text{song}_1, \text{song}_2, \dots, \text{song}_n.$$

$$r_x - (m_x - m_y)^2$$

$$\sum_{i=1}^N (r_i - m_i)^2$$

5	12
9 1	
1 17	
8 5	
5 17	
10 15	

$$10 + 1 - (15-17)^2 + 5 - (17-17)^2 = 10 + 1 - 4 + 5 - 0 = 12.$$

1 (30)
N 10.

2 (40)
N 200.

3 (30)
N 3000.

.

4.

: 1
 : 256
 N
 -
 , N.
 1 <= N <= 1000 1 <= C <= N
 1 N
 , 2 * C ,
 , 2 * -1 .

N C.

N C,

21 2	21 2: 5 7 11

5.

: 1
: 256

$x_i = (x_{i-1} + s) \% m,$ % -
 s m
 $m=5$ 0, 3, 1, 4, 2. $s=15$ $m=20$ 0, 15, 10, 5. $s=3$
 0 $m-1$
 0 $m-1$.

100000. s m ,

0 $m-1$ 1 : 0,

3 5	1
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