A. -

: swap.in

: swap.out

: 2

: 64

, « ». , ,

.

, , : a_1, a_2, a_3. $a_1 + a_2 = a_3$.

(, $a_1 = 1, a_2 = 4, a_3 = 3$), , (,

a_2 a_3, $1 + 3 = 4$).

– , ,

.

: a_1, a_2, a_3 (-10^8 $a_1; a_2; a_3$ 10^8).

YES, ,

. *NO.*

---

swap.in	swap.out
3 5 2	YES
2 2 5	NO
2 2 4	YES

B.

: square.in

: square.out

: 2

: 64

n n –

$n \times n$, , . ,

, , – , … , n-

– n- .

{'DATE', 'FIND', 'IDEA', 'NEXT'}. :

F	I	N	D
I	D	E	A
N	E	X	T
D	A	T	E

,   ,   .

,   10×10.

:

C	R	A	B
R	A	R	E
A	R	T	S
B	E	S	T

4×4,   .   ,

.

,

,   .

WORD SQUARE,   ,

SOMETHING OTHER   .

---

square.in	square.out
A B C D E F G H I J K L M N O P	SOMETHING OTHER
F I N D I D E A N E X T D A T E	WORD SQUARE
C R A B R A R E A R T S B E S T	WORD SQUARE
A A B B A A B B B B A A B B A A	WORD SQUAR

B.

:	square.in
:	square.out
:	2
:	64

n   *n*   −

n×n   ,   ,   .   ,

,   ,   −   , …

,   *n-*   −   *n-*   .

{'DATE', 'FIND', 'IDEA', 'NEXT'}.   :

F	I	N	D
I	D	E	A
N	E	X	T
D	A	T	E

,   ,   .

,   10×10.

:

C	R	A	B
R	A	R	E
A	R	T	S
B	E	S	T

4×4,   .   ,

.

———————

,

,   .

———————

WORD SQUARE,   ,

SOMETHING OTHER   .

———

square.in	square.out
A B C D E F G H I J K L M N O P	SOMETHING OTHER
F I N D I D E A N E X T D A T E	WORD SQUARE
C R A B R A R E A R T S B E S T	WORD SQUARE
A A B B A A B B B B A A B B A A	WORD SQUAR

C.

TrS   .

.

.

-    ,

m.   -   ,   50%

,

c .

,   .   ,

,   (,   ,

)   .

.

———————————————

: n, m, c $(1 \ n; m \ 100, 1 \ c$

$10^8)$. n :   ,

.

–   , 10^8.

———————————————

.

————

discount.in	discount.out
6 6 6 2 2 2 2 2 2	9
6 7 8 2 2 2 2 2 2	12

D.

$A(x_1, y_1)$ $B(x_2, y_2)$

:

$$(A, B) = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$$

$P.$ P

, $P.$

P k-   dual(P,k)

:

-      $P(\text{dual}(P,0)=P)$;

-    $k > 0$, k-   ,

dual$(P,k$-1$)$.

P $k.$ P k-

dual(P,k).

---

n $(3 \quad n \quad 100).$

n x_i y_i − i-

. x_i y_i 10^5 .

k $(0 \quad k \quad 10).$

$10^{-4}.$

---

dual.in	dual.out
4 0 0 1 0 1 1 0 1 0	4
4 0 0 1 0 1 1 0 1 1	2.8284271247