

Problem A. Xxx xx Xxxx

Input file: xxxxxx.xx
 Output file: xxxxxx.xxx
 Time limit: 2 xxxxxx
 Memory limit: 64 XxXxxxxxx

Xx xxx xxx xxx Xxxxxxxx xxxxx xx xxxxxx xx Xxxxxx. Xxx xxxx xxxxx xxx xxxxx xxxx xxxxxxxx
 xxxxxxxxxxxx xx 4 xxx xxx xxxxxxxxxxxx xx 100, xx xxxxxxxxxxxx xx 400.

Xxx xxxxxxxx, xxxxx 2004, 2180 xxx 2400 xxx xxxx. Xxxxxx 2001, 2181 xxx 2300 xxx xxx xxxx.

Xxxx xxxx xx xx xxxxx x xxxxxxxx xxxxx xxxx xxxxxxxx xxx xxx xx xxxx xxxxxxxxxxxxxxxxxxxx xx x xxxxx
 xxxxx xx xxx xxxxxxxx xxxxx xx xx xxx xxxxxxx xxxxx xxxxxx'x xxxxxxxxxxx xxxxx xxxxxxx.

Input

Xxx xxxxx xxxx xxxxxxxxxxx xx xxx xx xxxx xxxx xxxxx. Xxxx xxxx xxxx xx xxxxxxx xx x xxxxxxx
 xxxxx. Xxxx xxxx xxxxxxxxxxx xxx xxx xxxxxx d , xxxxx xxxx M xxx xxxx xxxxxxx y ($1980 \leq y \leq 10^{300}$).
 Xxx xxxxx xxxx xx xxx xxxxxxxxxxxxxxxxxxxx Xxxxxxxx xxxx xxxxxxxxxxx xxxxx xxx xxxxxxx xxxxxxx. Xxx
 xxxxx xxxxxxx xxx/xx xxxx xxxxx xxx xxxxxxx xxx xxxx xxxxx.

Output

Xxx xxxx xxxx xxxx, xxxxxxx x xxxxxxx xxxxx xxxx xxx Xxxxxxxx xxxxx xx xxx xxx xx xxxx xxxxxxxxxxxxxxxxxxxx
 xx xxx xxxx, xxxxxxxxxxx xxxxx xxx xxxxxxx xxxxxxx. Xxx xxxxx xxxxxxx xxxxx xx xx xxxxx xxxxx.

Example

xxxxxx.xx	xxxxxx.xxx
9 October 2001	Tuesday
14 October 2001	Sunday

Problem B. **Xxxxxx** **Xxxxxxxxxx**

Input file: xxxx.xx
 Output file: xxxx.xxx
 Time limit: 1 xxxxxx
 Memory limit: 64 XxXxxxxxx

X *xxxxxxxx* xx x xxxxxx n xx x xxx xx xxxxxxxx xxxxxxxx xxxxxxxx $d_1 \geq d_2 \geq \dots \geq d_k$ xxxx xxxx

$$\sum_{i=1}^k d_i = n$$

Xxxxxxxx xxx xxxxxxxxxxxx xx x xxxxx xxxxxxx xx xxxx-xxxxxxxxxxxxxxxxxxxx xxxxx.

Input

Xxxxx xxxxxx xxxxxxxx xxx xxxxxxxx xxxxxxxx xxxxxxx n, $1 \leq n \leq 30$.

Output

Xxxxx xxxx xxxxxx xxxxxxxx xxx xxxxxxxxxxxx xx x xxxxxxx n, xxx xxxxxxxxxxxx xx x xxxxx, xx xxxxx-xxxxxxxxxxxxxxxxxxxx xxxxxx.

Example

xxxx.xx	xxxx.xxx
3	3 2+1 1+1+1

Problem C. Xxxxx Xxxxxx Xxxxxxxx

Input file: xxx.xx
Output file: xxx.xxx
Time limit: 1 xxxxxx
Memory limit: 64 XxXxxxxxx

Xxxxxxxx xxx xxxxx xxxxxx xxxxxxxx xx xxx xxxxxxxx xxxxxxxx 1 xxx n .

Input

Xxx xxxxxxx $1 \leq n \leq 1000$.

Output

Xxx xxxxxxx.

Example

xxx.xx	xxx.xxx
3	6
6	60

Problem D. Xxxxxx Xxxxx

Input file: xxxxxxxx.xx
 Output file: xxxxxxxx.xxx
 Time limit: 1 xxxxxx
 Memory limit: 64 XxXxxxxx

Xxxx xxxx xx xx xxxx xxx xxxx xxxxxx xx xxx xxxxxxxx $ax^2 + bx + c = 0$.

Input

Xxxxx xxxx xxxxxxxx xx xxxxx xxxxxxxx a, b xxx c . Xxxxx xxxxxxxx xxxxxx xxx xxx xxxxxxx 10^9 .

Output

Xxx xxxxx xxxx xx xxx xxxxxxx xxxx xxxxxxxxxx xxx xxxxxx xx xxxxx xx xxx xxxxxxxx. Xxx xxxx k xxxxx xxxxxxx xxx xxxx xxxxxxx xxxx xxxxxxx xx xx xxx xxxxxxx xxxxx xxxxxxx xxxxx — xxx xxxx xx xxxx xxxxxxxx. Xxx xxxxx xxxx xx xx xxxxxxxxxx xx xxxxxxxxxx xxxxx. Xx xxxxx xxx xxxxxxxxxx xxxx xxxxx, xxxxxxx x xxxxxxx xxxxxxx -1 xxxxxxx xx xxx xxxxxxx xx xxxxx.

Example

xxxxxxx.xx	xxxxxxx.xxx
1 -2 -3	2 -1.000000 3.000000

Problem E. Xxxxx Xxxxx

Input file: xxxxxx.xx
Output file: xxxxxx.xxx
Time limit: 1 xxxxxx
Memory limit: 64 XxXxxxxxx

Xxxxxx xxx k -xx xxxxx xxxxxx.

Input

$k \leq 10000$.

Output

Xxx xxxxxx.

Example

xxxxxx.xx	xxxxxx.xxx
3	5
7	17

Problem F. Xxx Xxxxxx

Input file: xxxxxx.xx
 Output file: xxxxxx.xxx
 Time limit: 1 xxxxxx
 Memory limit: 64 XxXxxxxxx

Xxxxx xxx xxx xxxxxxxx xxxxx xx xxx xxxxx. Xxxx xxxx xx xx xxxx xxx xxxxxxx xx xxxxx
 xxxxxxxxxxxxxxx.

Input

Xxx xxxxx xxxx xx xxx xxxxx xxxx xxxxxxxxxxx xxxxxxx xx xxxx xxxxx K ($1 \leq K \leq 10000$). Xxxx
 xxxx xxxx xxxxxxxx xx 2 xxxxx: xxxxx xxxxxxxxxxx xxx xxxxxxxxxxx xx xxx xxxxx xxxxxxx, xxx xxx
 xxxxxxx xxx xxxx xxx xxx xxxxxx. Xxx xxxxxxxxxxx xx xxxx xxxxxxx xx xxxxxxx xx xxx xxxx x, y, r
 ($-1000 \leq x, y \leq 1000, 0 < r \leq 1000$). Xxx xxxxxxx xxx xxxxxxx.

Output

Xxx xxxx xxxx xxxx xxx xxx xx xxxxxxx xxx xx xxx xxxxxxxxxxx xxxxxxx:

- “There are no points!!!” — xx xxxxx xxx xx xxxxxxxxxxxxxxx xxxxxxx.
- “There are only i of them....” — xx xxx xxxxxxx xxx xxxxxxx i xxxxxxxxxxxxxxx xxxxxxx.
 Xx xxxx xxxx xxx i xxxxx xxxxxxx xxxxxxxxxxx xxx xxx xxxxxx x'_j, y'_j . Xxxxxx xxx xx xx
 xxxxxxxxxxx xx xxx xxxxxxxxxxxxxxxxxxx xxxxx (xxxxx xxxx xxx xxxxxxx x , xx x xxxxxxxxxxx xxx
 xxxxx, xxxxx xxxx xxx xxxxxxx y). Xxxxxxx xxx xx xx xxxxxxxxxxx xxxxx 6 xxxxxxx xxxxx xxx
 xxxxxxx xxxxx.
- “I can’t count them - too many points :(” — xx xxxxx xxx xxxxxxxxxxx xxx xxxxxxx xx
 xxxxxxxxxxxxxxx.

Xxx xxxxxxxxxxx xxxxx xx xx xxxxxxxxxxx xxxxxxx xxxxxxx.

Xxxxxxxxx xxxxxxx xxx xxxxxxxxxxx xxxxx xxxxx x xxxxxxx xxxxx xxxxx.

Example

xxxxxx.xx	xxxxxx.xxx
2	There are only 1 of them....
0 0 2	2.000000 0.000000
4 0 2	
0 0 1	There are no points!!!
1000 1000 1	