## Minimum Bid

### Problem Description

Consider people calling out bids in different number bases at an auction. Find the minimum bid assuming the following:

1. The bid numbers are in bases that make their respective values minimum.

2. There is only one minimum value among all the bids.

### Constraints

1. N <= 10

2. Maximum base = 36

3. Symbols used for digits: Base 2: 0, 1   
Base 3: 0, 1, 2   
...  
Base 11: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A

…

Base 36: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z

4. Face values for symbols: Symbol => Value 0 => 0   
1 => 1  
2 => 2  
….   
9 => 9  
A => 10  
B => 11  
….   
Z => 35

### Input Format

N different numbers in various bases, with numbers delimited by space

### Output

The value in base 10 of the minimum bid.

### Test Case

### Explanation

Example 1

Input

11 12

Output

3

Explanation

The value of number represented by 11 is least in base 2 and that least value in base 10 is 3. The least value of the representation 12 is in base 3 and is equal to 5. Since 3 < 5, 3 is the lowest bid and is the output.

Example 2

Input

1Z A L0 17

Output

10

Explanation

The least values are:  
1Z in base 36: 1\*36+35 = 71  
A in base 11: 10   
L0 in base 22: 21\*22+0 = 462   
17 in base 8: 1\*8+7 = 15   
Hence the least bid is 10.