Question 2.

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from the description we know $1 <= y_{min} <= n$, $c_i >= 1$ and $y_i = c_i + E$

so the range of E is $1 <= E <= y_{min}$, if we made all the possible E to a set,

Its length will be y_{min}, then we used binary search to find the correct E,

first choose the middle number in E set as Number **X**

calculate the sum of $x_i/(y_i-X)$ from i = 1 to i = n as S'

check if S = S' then find the value of E and also find the correct value of y_i

else if S > S', which means the number before X are all not correct so use the

other half to do another binary search, same applies for S < S'.

Its complexity is, do binary search for a set with length = y_{min} and calculate

the sum of n numbers = O(log y_{min} * n) = O(n log min{y_i: 1<=i<=n})