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**2.**

According to the question requirements, yi­ and E are both positive integers. The integer E is a positive constant. Therefore, the E = yi-ci. In order to keep all the ci are positive, yi >= y­min - E>= 1, which means if the smallest y among [1, n] larger than E, the other y must satisfy the condition. We also know that S = ∑ i=1 xi/ci. ,By using yi – E replacing ci, S = ∑ i=1 x i/(yi – E).

Therefore in order to find all the correct xi/ci, we should only traverse all i which is O(n), and in the loop, we should check if S = ∑ i=1 xi/(yi – E), because the result is monotonous，the time complexity to find S is O(logymin), therefore, the total time complexity is O(n)\*O(logymin).