Impossibility

Problem transformation

This problem can be transformed to determine the upper bound of the guaranteed harvest.

Approach

Assume the upper bound is the sum of all growth rates in the list, and f(x) represents the guaranteed harvest.

G represents the growth rate of the i_{th} bamboo and there are k bamboos, then:

$$f(x) < \sum_{i=1}^{k} G_i$$

To achieve a guaranteed harvest equal to the sum of all growth rates, the growth rate for each bamboo should be:

$$G_i = G_{avg} = \frac{\sum_{i=1}^{k} G_i}{k}$$

However, in any given list of growth rates, the rates are distinct and in descending order. This means:

$$\neg \exists i \in \{1, 2, 3..., k\} : G_i = G_{avg}$$

Therefore, for all provided growth rate lists, there exists an upper bound for the guaranteed harvest, which is:

$$f(x) = o(\sum_{i=1}^{k} G_i)$$

Conclusion

In conclusion, it is impossible for the guaranteed daily harvest to equal the sum of all growth rates for the given bamboo plots.