5 Boxes

5.1 Problem

Bob has applied for a job at a company that ships a large number of (one-dimensional) empty boxes. To check whether Bob is qualified for the job, he was asked to minimize the number of boxes that take up space.

To accomplish his task, he is allowed to put a smaller box inside a larger one, but only if the size of the larger box is at least twice as large as the size of the smaller box. In addition, at most one box is allowed to be placed directly inside another box (the smaller box can still contain other boxes, however). The goal is to minimize the number of visible boxes at the end.

Bob has been stuck with the task for a while. Since he has heard rumours about your extraordinary programming skills, he asked you to help him out.

5.2 Input

The input starts with a line containing the number of available boxes n ($1 \leq n \leq 5 \cdot 10^5$).

The next n lines each contain the size of a single box (positive). The $(i + 1)$-th line contains the size of the i-th box. It is guaranteed that all sizes will fit into a signed 32-bit integer value.

5.3 Output

Print the minimum possible number of visible boxes on a single line (don't forget the linebreak at the end).

5.4 Sample Data

Input	Output
5 1 2 3 3 5	3