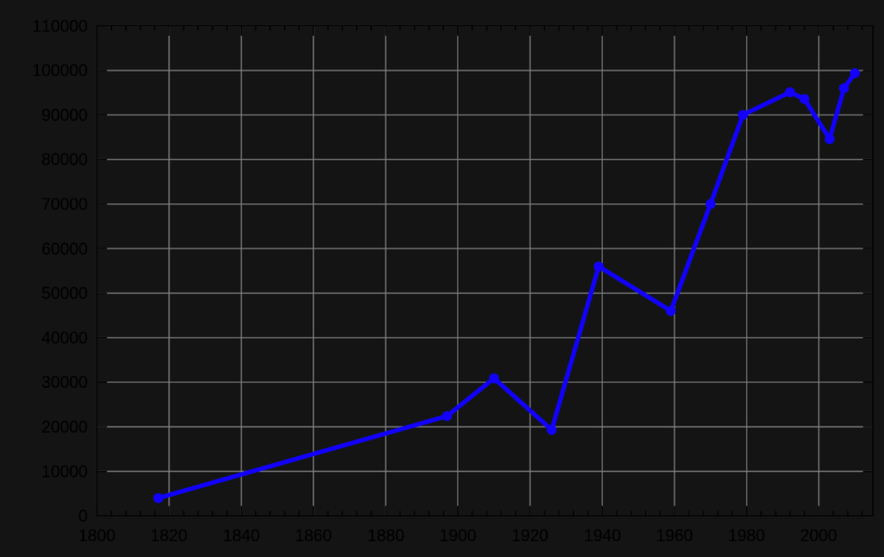
2280. Minimum Lines to Represent a Line Chart

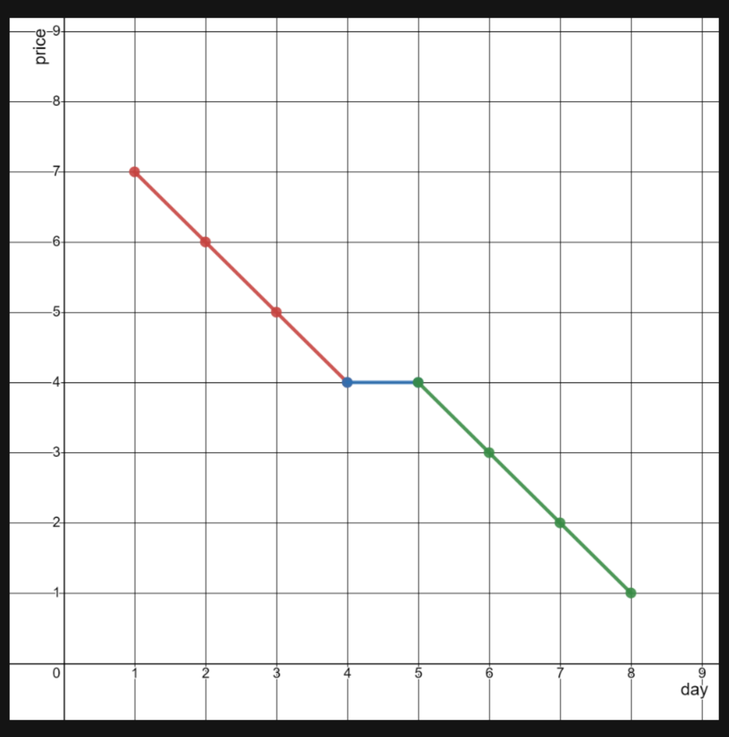
Description

You are given a 2D integer array `stockPrices` where `stockPrices[i] = [day_i, price_i]` indicates the price of the stock on day `day_i` is `price_i`. A **line chart** is created from the array by plotting the points on an XY plane with the X-axis representing the day and the Y-axis representing the price and connecting adjacent points. One such example is shown below:



Return *the* ***minimum number of lines*** *needed to represent the line chart*.

Example 1:

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Input: stockPrices = [[1,7],[2,6],[3,5],[4,4],[5,4],[6,3],[7,2],[8,1]]
Output: 3
Explanation:
The diagram above represents the input, with the X-axis representing the day and Y-axis representing the price.
The following 3 lines can be drawn to represent the line chart:
- Line 1 (in red) from (1,7) to (4,4) passing through (1,7), (2,6), (3,5), and (4,4).
- Line 2 (in blue) from (4,4) to (5,4).
- Line 3 (in green) from (5,4) to (8,1) passing through (5,4), (6,3), (7,2), and (8,1).
It can be shown that it is not possible to represent the line chart using less than 3 lines.
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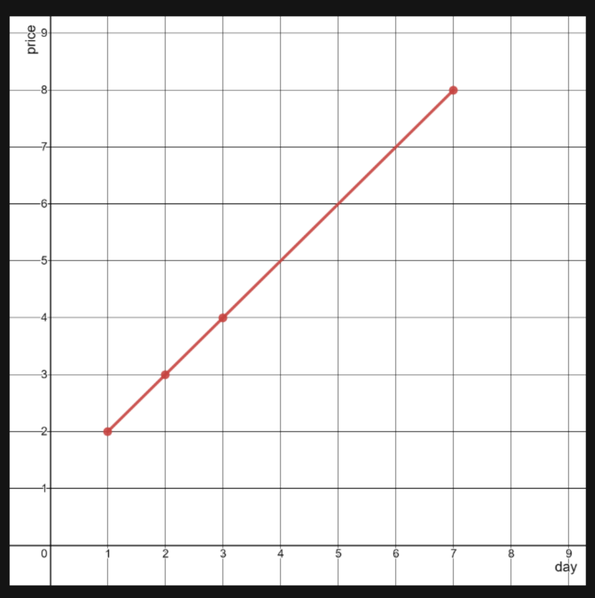
Example 2:




```
Input: stockPrices = [[3,4],[1,2],[7,8],[2,3]]
Output: 1
Explanation:
As shown in the diagram above, the line chart can be represented with a single line.
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Constraints:

- `1 <= stockPrices.length <= 10^5`
- `stockPrices[i].length == 2`
- `1 <= day_i, price_i <= 10^9`
- All `day_i` are **distinct**.