

# Problem overview

An investor has saved some money and wants to invest in the stock market. There are a number of stocks to choose from, and they want to buy **at most 1 share in any company**. The total invested cannot exceed the funds available. A friend who is a stock market expert has predicted the values of each stock after 1 year. Determine the maximum profit that can be earned at the end of the year assuming the predictions come true.

## Inputs

selectStock has the following parameter(s):

- int **saving**: amount available for investment
- int **currentValue**[n]: the current stock values
- int **futureValue**[n]: the values of the stocks after one year

Constraints:

- $0 < n \leq 100$
- $0 < \text{saving} \leq 30000$
- $0 \leq \text{currentValue}[i], \text{futureValue}[i] \leq 300$

## Example

saving = 250

currentValue = [175, 133, 109, 210, 97]

futureValue = [200, 125, 128, 228, 133]

To maximize profits, the investor should buy stocks at indices 2 and 4 for an investment of  $109 + 97 = 206$ . At the end of the year the stocks are sold for  $128 + 133 = 261$ , so total profit is  $261 - 206 = 55$ .

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