

Your first assignment as a Jet employee is to build an internal dashboard of various order statistics and how they change over time. The 3 most important values that should be calculated are the *maximum price*, *average price* and *standard deviation*.

To observe the evolution of these values in the given list of prices, for the given number n you should consider the following *running sets* of orders:

- the n^{th} order at the end;
- the n^{th} and $(n - 1)^{\text{th}}$ orders at the end;
- the n^{th} , $(n - 1)^{\text{th}}$ and $(n - 2)^{\text{th}}$ orders at the end;
- ...
- n last orders, from the n^{th} at the end to the most recent one.

For each of the *running sets*, calculate the required statistics and return them in arrays comprised of three elements.

When it's impossible to calculate the *standard deviation*, return -1 instead.

Example

- For orders = [4, 2, 5, 9, 2] and $n = 5$, the output should be
- `jetDashboard(orders, n) = [[4, 4.0, -1],`
- `[4, 3.0, 1.41421],`
- `[5, 3.66667, 1.52752],`
- `[9, 5.0, 2.94392],`
- `[9, 4.4, 2.88097]]`

The values are calculated for the following *running sets*: [4], [4, 2], [4, 2, 5], [4, 2, 5, 9] and [4, 2, 5, 9, 2].

- For orders = [4, 2, 5, 9, 2] and $n = 3$, the output should be
- `jetDashboard(orders, n) = [[5, 5.0, -1],`
- `[9, 7.0, 2.82843],`
- `[9, 5.33333, 3.51188]]`

Input/Output

- **[time limit] 4000ms (py)**
- **[input] array.integer orders**
Array of orders, where `orders[i]` is a positive integer denoting the price of the i^{th} order.
Constraints:
 $1 \leq \text{orders.length} \leq 100$,
 $0 \leq \text{orders}[i] \leq 1000$.
- **[input] integer n**
The length of the time period.
Constraints:
 $1 \leq n \leq \text{orders.length}$.
- **[output] array.array.float**

A two-dimensional array of n elements. For each $0 \leq i < n$ the i^{th} element should contain statistics of the i^{th} *running set* in the following format: `[max_price, average_price, standard_deviation]`. Your answer will be considered correct if the absolute error of each output element does not exceed 10^{-5} .