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](keyword://arithmetic-mean) and [standard deviation](keyword://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 nth order at the end;
* the nth and (n - 1)th orders at the end;
* the nth, (n - 1)th and (n - 2)th orders at the end;
* ...
* n last orders, from the nth 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 ith order.

*Constraints:*  
1 ≤ orders.length ≤ 100,  
0 ≤ orders[i] ≤ 1000.

* **[input] integer n**

The length of the time period.

*Constraints:*  
1 ≤ n ≤ orders.length.

* **[output] array.array.float**

A two-dimensional array of n elements. For each 0 ≤ i < n the ith element should contain statistics of the ith *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.