Data Stream Standard deviation

Calculate the standard deviation of all integers in the sliding window.
You have to implement a class called StreamSTD such that:

- Constructor StreamSTD(int windowSize) initializes the window size of the object
- Double next(int v) which returns the standard deviation of the last ***windowSize*** values of the stream

Input
["set window size", "next", "next", "next", "next", “next”]
[[3], [10], [20], [3], [5], [6]]
Output
[null, 0.0, 5.0, 6.97614984548545, 7.586537784494028, 1.247219128924647]
Explanation
StreamSTD stream = new StreamSTD(3);
stream.next(10); // return 0.0 = STD(10)
stream.next(20); // return 5.0 = STD(10 + 20)
stream.next(3); // return 6.97614984548545 = STD(10 + 20 + 3)
stream.next(5); // return 7.586537784494028 = STD(20 + 3 + 5)
stream.next(6); // return 1.247219128924647 = STD(3 + 5 + 6)

Solve it using a FIFO data structure (for simplicity use java.util.ArrayDequeue).
Use the template file.

*Standard deviation of a population (divide by N)