Pressure Station

Time limit: 1 sec

Remark: this problem is adapted from Thailand ACM-ICPC 2015 Central-A

    One particular construction company are digging a tunnel for underground railways. This tunnel is divided into **N** segments where each segment is 1 meters long. Each segment is labeled 1..N.

    This tunnel requires pressure station that regulates air pressure inside the tunnel. The air pressure change rapidly because of moving trains. Each pressure station take exactly 1 segment space. The engineer has already calculated that a station built at segment S has capacity to regulate pressure in any segment not more than **K** segments away from the segment S. For example, let us assume that K is 2, if a pressure station is built at the segment 7, this station can regulate pressure from segment 5 to 9.

    We need to build pressure stations such that pressure in all segments in the tunnel is regulated. However, building a station incurs lots of cost. This cost may different along different segment in the tunnel because the station has to build on the ground and the cost for the land is different. Let **p[i]** be the cost of building a pressure station at segment i, write a program to calculate least cost of building required pressure stations that regulates all segments.

Input

- The first line contains two integers **N** and **K** (1 ≤ N ≤ 10,000; 1 ≤ K ≤ 1,000)
- The second line contains **N** integers describing the cost for each segments, from p[1] to p[n], respectively. (1 ≤ p[i] ≤ 1,000)

Output

    The output must contain exactly one line giving the minimal summation of cost of all stations required to regulate all segments.

Example

Input	Output
5 1 1 99 1 99 1	3
5 1 99 1 99 1 99	2
7 3 1 2 3 4 3 2 1	2