Cash Transport

Problem ID: cashtransport

CSN just sent you this month's student loan. Finally, you have enough money to rent DBus, the computer science student division's very own van! You've thought about going on a road trip but as the responsible student you are you've decided to use this possibility to earn money. And is there a better strat in the capitalist grind than robbing armored cash transports?

There are N banks. Bank i has a balance of a_i on day 0. During the following M days there will be a cash transport every day. A cash transport goes from bank a to bank b and takes all of the money in bank a and gives it to bank b. During your time with dBus you will have time to rob K cash transports (not necessarily consecutively). How much money can you rob at most?

Input

The first line of input contains three integers N, M and K ($1 \leq N \leq 3 \cdot 10^5$, $1 \leq M \leq 3 \cdot 10^5$ and $1 \leq K \leq M$).
The second line contains N space-separated integers $a_0, a_1, ..., a_N$ ($0 \leq a_i \leq 10^9$), denoting the initial balance of bank i.
The following M lines contains integers a and b ($0 \leq a, b < N$, $a \neq b$). Each pair describes a cash transport between banks a and b.

Output

Output a single integer: the maximum amount you can steal from the cash transports.

Sample Input 1	Sample Output 1
4 3 1 9 3 1 1 0 1 0 2 1 3	12