

3_黑白舞蹈機 - Dance Dance Revolution

(15分)

(子任務1: 6分, 子任務2: 9分)

問題敘述

小 B 是一個喜歡跳舞的小孩，他時常隨著音樂進行有節奏的舞蹈。一天，他在遊樂場看到了一台「黑白舞蹈機」，對跳舞充滿興致的他，二話不說就開始挑戰它。「黑白舞蹈機」中一個關卡是由 N 個燈泡以及 M 個踏板組成，每個踏板都可以讓某兩個不同的燈泡改變亮暗，一開始有一些燈泡會是亮著的狀態，遊戲的目標是讓所有燈泡都變成暗的，除此之外，因為踩踏重複的踏板會讓小 B 顯得看起來沒有韻律，所以小 B 給自己設下的限制是不能踩踏已經踩過的踏板。小 B 想知道他必須依序踩踏哪些踏板才能達成目標，又或者是這個關卡一開始就心懷不軌讓人無法破關？

輸入

輸入第一行有兩個正整數 N, M ($1 \leq N \leq 10^5, 0 \leq M \leq 2 \times 10^5$)，分別代表燈泡數量以及踏板數量，燈泡的編號分別為 $1, 2, \dots, N$ ，踏板的編號分別為 $1, 2, \dots, M$ 。

輸入第二行有 N 個整數 c_i ($c_i \in \{0, 1\}$)，代表第 i 個燈泡的初始狀態，0 代表該燈泡為暗，1 代表該燈泡為亮。

接下來 M 行，第 i 行有兩個正整數 x, y ($1 \leq x, y \leq N, x \neq y$)，代表踩下編號為 i 的踏板會改變編號 x 與 y 的燈泡狀態。

輸出

若不存在一系列踩踏板操作使得所有燈泡都變成暗的，請在第一行輸出 **No**，否則輸出 **Yes**。

若第一行輸出 **yes**，請在第二行輸出一個整數，代表踩的踏板數量，第三行請依先後順序輸出小 B 應該踩踏的踏板編號，請注意不能重複踩踏相同的踏板。若有多種踩踏板的方法讓所有燈泡變暗，請任意輸出一種方案即可。

子任務

子任務1: 保證以所有 (x, y) 為邊的圖會是一條鏈

範例輸入1

```
5 5
0 0 1 1 0
1 5
2 1
4 2
2 3
4 3
```

範例輸出1

```
Yes  
1  
5
```

範例輸入2

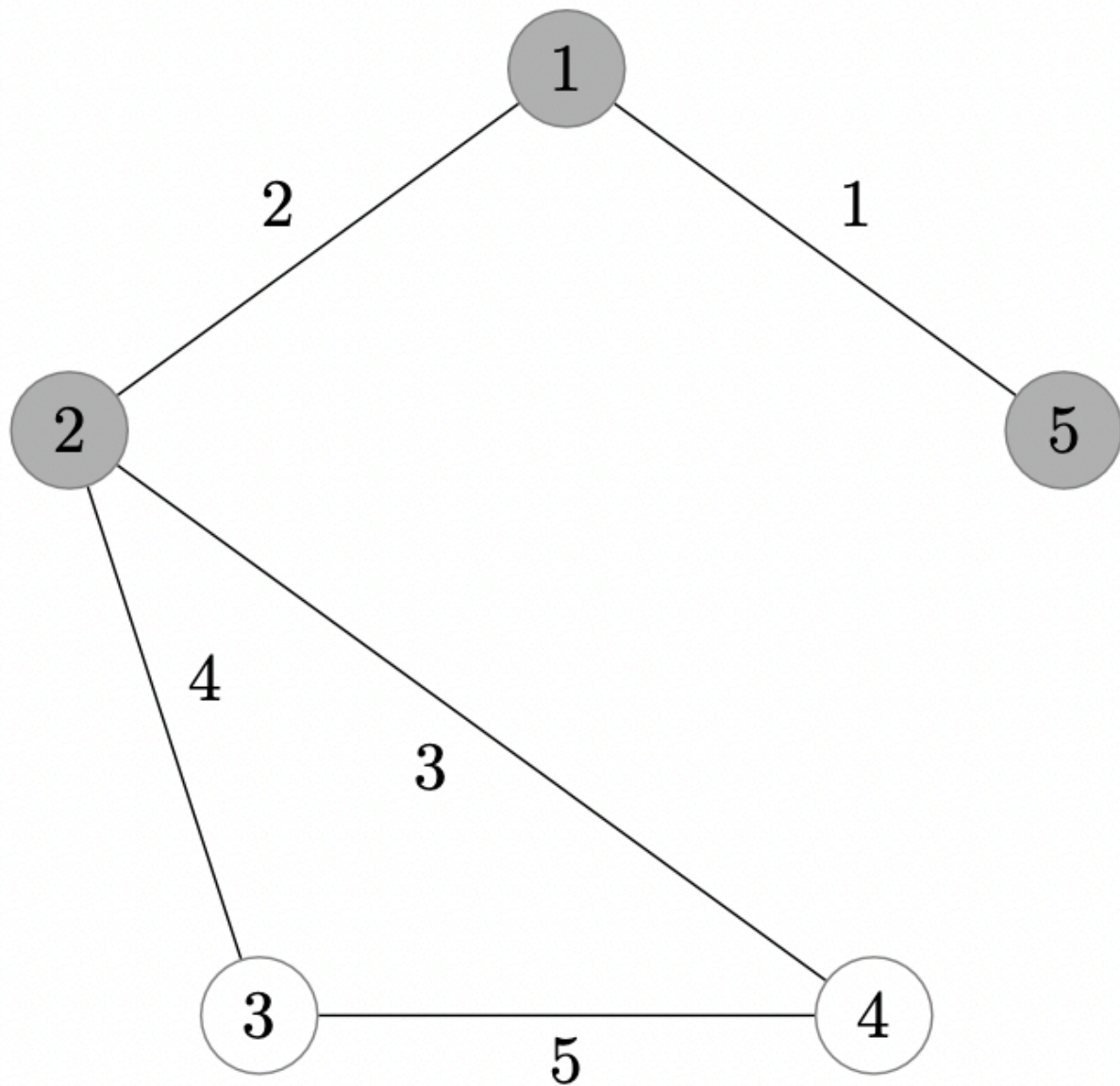
```
5 5  
1 0 1 1 0  
1 5  
2 1  
4 2  
2 3  
4 3
```

範例輸出2

```
No
```

範例說明

範例輸入1可參考下圖，踩下第 5 個踏板可改變第 3 及第 4 個燈泡狀態，即可讓所有燈泡都變成暗的。



3_Dance Dance Revolution

(15 points)

(Subtask 1: 6 points, Subtask 2: 9 points)

Description

Bob, a fanatic dancer, loves to dance rhythmically with the music. One day, he discovered a fantastic DDR, also known as "Light or Dark? Dance Dance Revolution". Enthusiastic about the dance as Bob is, he immediately started the challenge. In "Light or Dark? Dance Dance Revolution", each stage consists of N lamps and M pedals. Each pedal connects two different lamps so that it can change the state of these lamps. Initially, there are some lamps turning light, and other lamps turning dark. The goal of the game is to darken all lamps. Besides, Bob hopes his dance is metrical, so he cannot tap the duplicate pedals. Under these constraints, could Bob finish the target of the game? Please help him find a solution.

Input

The first line of input contains two integers N, M ($1 \leq N \leq 10^5, 0 \leq M \leq 2 \times 10^5$), representing the number of lamps and pedals, respectively. The lamps are indexed from 1 to N , while the pedals are indexed from 1 to M .

The second line of input contains N integers c_i ($c_i \in \{0, 1\}$), describing the initial state of i^{th} lamps. 0 means that the lamp is dark, and vice versa.

In the following M lines, the i^{th} line contains two different integers x, y ($1 \leq x, y \leq N, x \neq y$), meaning that the i^{th} pedals connects two lamps with index x, y .

Output

If there doesn't exist a series of pace to darken all lamps, output **No** in the first line, otherwise output **Yes**.

If the answer is **Yes** in the first line, please output an integer in the second line, describing the number of pedals needed to be tapped. In the third line, please output all indexes of lamps that Bob should tap in order. Notice that no duplicate pedals are allowed.

If there are multiple ways to darken all lamps, please output any of them.

Subtasks

Subtask 1: The input graph is a chain.

Sample Input 1

```
5 5
0 0 1 1 0
1 5
2 1
4 2
2 3
4 3
```

Sample Output 1

```
Yes
1
5
```

Sample Input 2

```
5 5
1 0 1 1 0
1 5
2 1
4 2
2 3
4 3
```

Sample Output 2

```
No
```

Hints

In Sample Input 1, tapping the 5th pedals can darken the 3th and the 4th lamps, making all lamps dark.

