2242. Maximum Score of a Node Sequence

Description

There is an **undirected** graph with `n` nodes, numbered from `0` to `n - 1`.

You are given a **0-indexed** integer array `scores` of length `n` where `scores[i]` denotes the score of node `i`. You are also given a 2D integer array `edges` where $\texttt{edges[i]} = [a_i, b_i]$ denotes that there exists an **undirected** edge connecting nodes a_i and b_i.

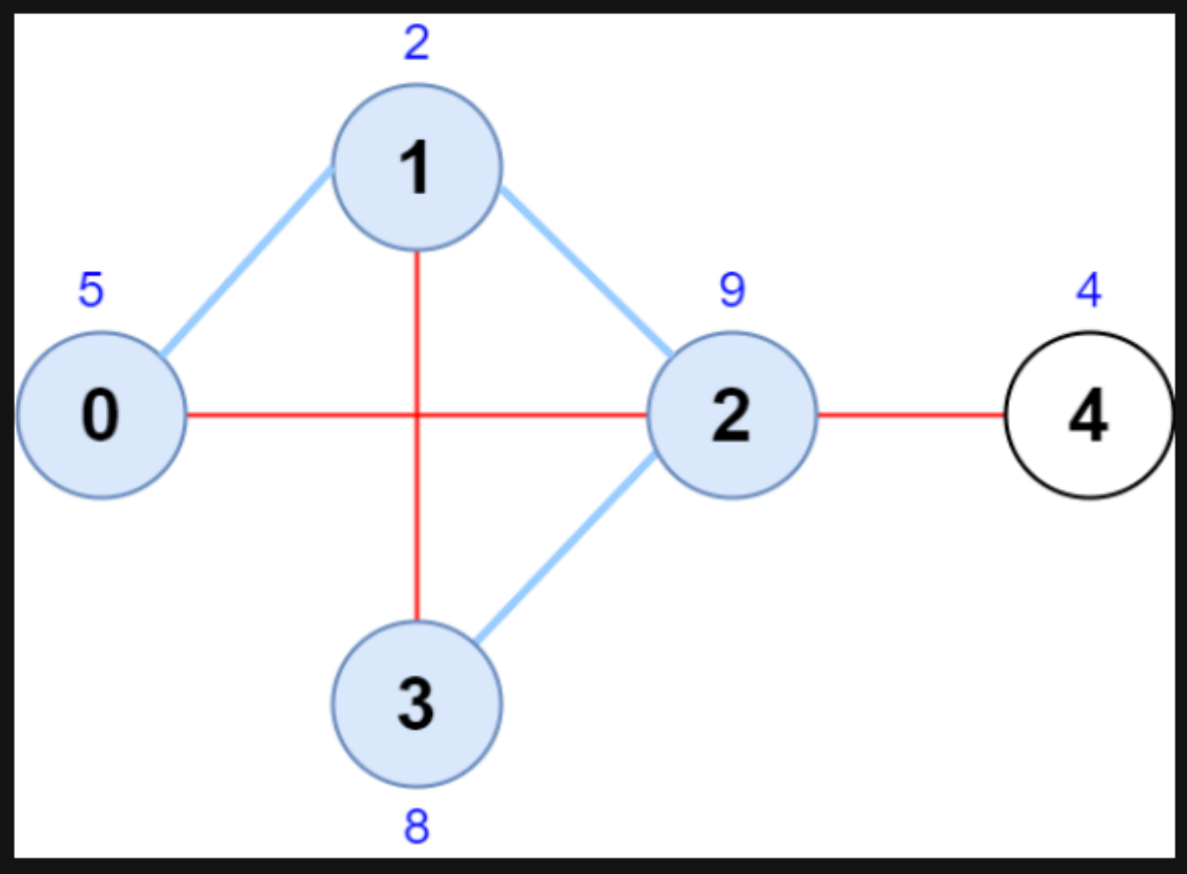
A node sequence is **valid** if it meets the following conditions:

- There is an edge connecting every pair of **adjacent** nodes in the sequence.
- No node appears more than once in the sequence.

The score of a node sequence is defined as the **sum** of the scores of the nodes in the sequence.

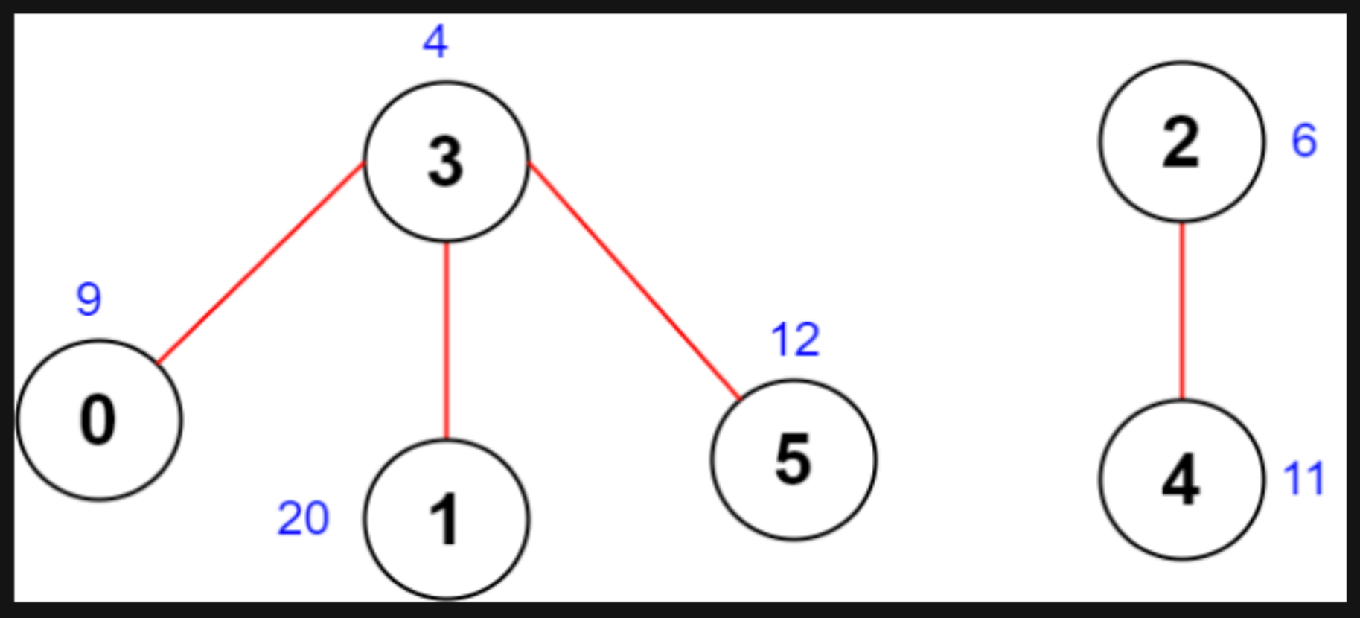
Return *the **maximum score** of a valid node sequence with a length of* `4`*.* If no such sequence exists, return `-1`.

Example 1:



```
Input: scores = [5,2,9,8,4], edges = [[0,1],[1,2],[2,3],[0,2],[1,3],[2,4]]
Output: 24
Explanation: The figure above shows the graph and the chosen node sequence [0,1,2,3].
The score of the node sequence is 5 + 2 + 9 + 8 = 24.
It can be shown that no other node sequence has a score of more than 24.
Note that the sequences [3,1,2,0] and [1,0,2,3] are also valid and have a score of 24.
The sequence [0,3,2,4] is not valid since no edge connects nodes 0 and 3.
```

Example 2:



```
Input: scores = [9,20,6,4,11,12], edges = [[0,3],[5,3],[2,4],[1,3]]
Output: -1
Explanation: The figure above shows the graph.
There are no valid node sequences of length 4, so we return -1.
```

Constraints:

- `n == scores.length`
- $4 \le n \le 5 * 10^4$
- $1 \le \texttt{scores[i]} \le 10^8$
- $0 \le \texttt{edges.length} \le 5 * 10^4$
- `edges[i].length == 2`
- $0 \le a_i, b_i \le n - 1$
- $a_i \ne b_i$
- There are no duplicate edges.