134. Gas Station

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- **Greedy**

Description

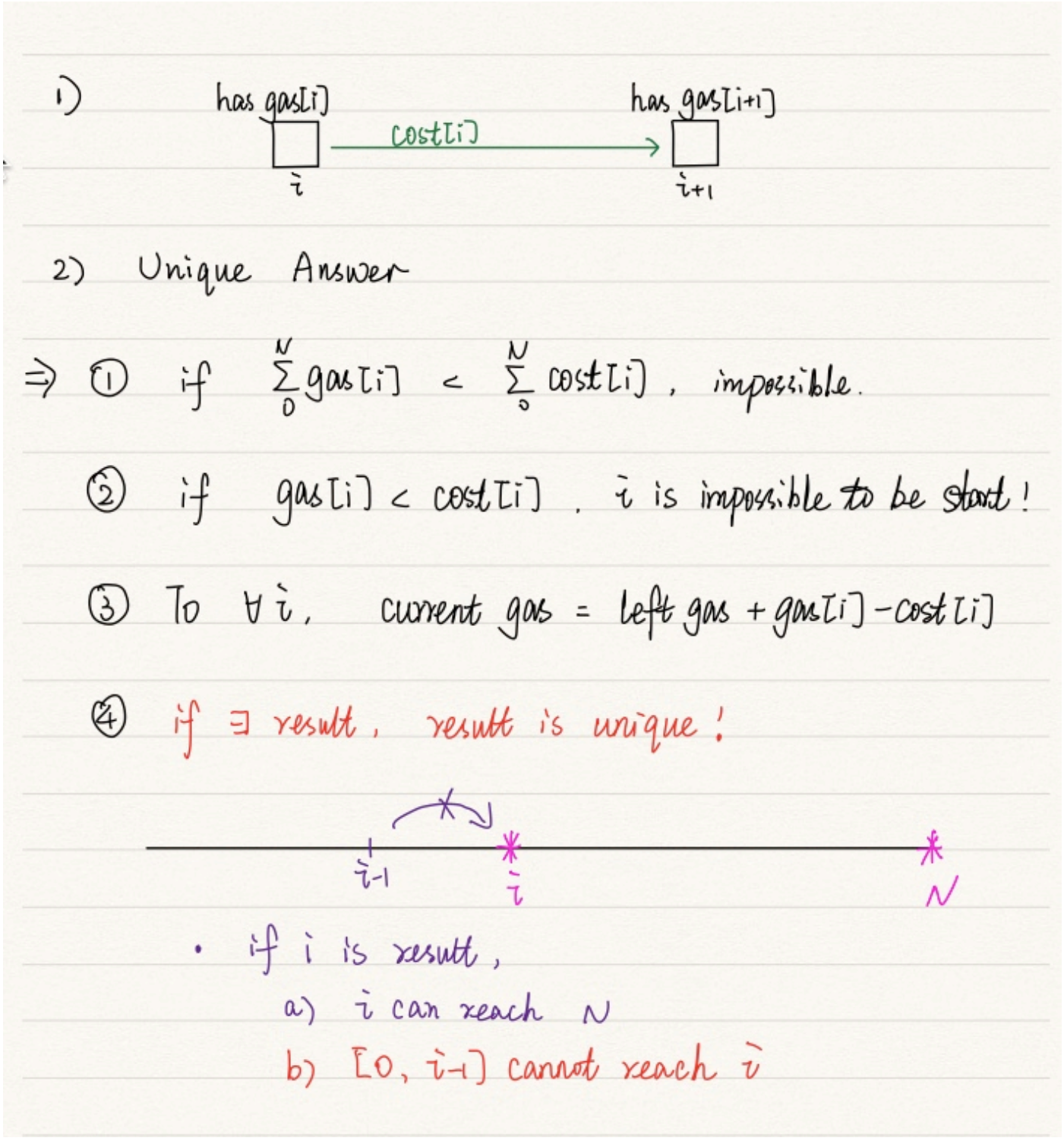
There are *N* gas stations along a circular route, where the amount of gas at station *i* is `gas[i]`.

You have a car with an unlimited gas tank and it costs `cost[i]` of gas to travel from station *i* to its next station (*i*+1). You begin the journey with an empty tank at one of the gas stations.

Return the starting gas station's index if you can travel around the circuit once, otherwise return -1.

Note:
The solution is guaranteed to be unique.

1. Thought line



2. Greedy

```
class Solution {
public:
    int canCompleteCircuit(vector<int>& gas, vector<int>& cost) {
        int candidateRes = 0;
        int curGas = 0, netGas = 0;
        for(int i = 0; i<=gas.size()-1; ++i){
            netGas += gas[i] - cost[i];
            curGas += gas[i] - cost[i];
            if (curGas<0){
                curGas = 0;
                candidateRes = i+1;
            }
```

```
        }
        if (netGas<0) return -1;
        return candidateRes;
    }
};
```