

Our Solution(s)	Run Code	Your Solutions	Run Code
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Solution 1

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 #include <vector>
4 using namespace std;
5
6 int getNextIdx(int currentIdx, vector<int> array);
7
8 // O(n) time | O(1) space - where n is the length of the input array
9 bool hasSingleCycle(vector<int> array) {
10     int numElementsVisited = 0;
11     int currentIdx = 0;
12     while (numElementsVisited < array.size()) {
13         if (numElementsVisited > 0 && currentIdx == 0)
14             return false;
15         numElementsVisited++;
16         currentIdx = getNextIdx(currentIdx, array);
17     }
18     return currentIdx == 0;
19 }
20
21 int getNextIdx(int currentIdx, vector<int> array) {
22     int jump = array[currentIdx];
23     int nextIdx = (currentIdx + jump) % (int)array.size();
24     return nextIdx >= 0 ? nextIdx : nextIdx + array.size();
25 }
26
```

Solution 1   Solution 2   Solution 3

```
1 using namespace std;
2
3 bool hasSingleCycle(vector<int> array) {
4     // Write your code here.
5     return -1;
6 }
7
```

**Run or submit code when you're ready.**