**HOMEWORK 2**

PROBLEM 2.

1. **4 3**
2. **3 3**
3. **5 3**
4. **5 2**
5. **5 1**
6. **6 1**
7. **7 1**
8. **8 1**
9. **8 2**
10. **6 3**
11. **4 4**
12. **4 5**

PROBLEM 4.

1. **4 3**
2. **4 4**
3. **5 3**
4. **3 3**
5. **4 5**
6. **6 3**
7. **5 2**
8. **4 6**
9. **5 5**
10. **5 1**
11. **4 7**
12. **6 5**

The algorithm used in mazestack.cpp does a depth first search because stack pops the most recently pushed in element first(i.e. Last In First Out). So it searches one direction all the way down until reaching a dead end. After that it moves to the previous left out fork.

On contrary, the queue uses breadth first search. It follows first in first out principle cheking every path in each unit depth.