**Test cases**

Consider the sprint task #3– Test algorithm

Some of the test cases for this task are as follows:

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| Test case  # | Scenario | Input(s) | Expected output |
| 1 | The environment has only one region. A region has only one agent. | Agent array, Region matrix, Number of steps | The agent traversal all the open spaces then it stops. |
| 2 | The environment has only one region. A region has more than one agent. | Agent array, Region matrix, Number of steps | Agents traversal the region at the same time. They have different paths. Once all open spaces are visited, algorithm stops. |
| 3 | The environment has more than one region. Each region has only one agent. | Agent array, Region matrix,  Number of steps | All agents in different regions traversal at the same time. Once all open spaces are all visited, the algorithm stops. |
| 4 | The environment has more than one region. Each region has more than one agent. | Agent array, Region matrix, Number of steps | All agents in different a regions traversal at the same time. Once all open spaces are all visited, the algorithm stops. |
| 5 | The environment has only one region. A region has only one agent. Enter a number indicates the steps an agent moves. | Agent array, Region matrix, Number of steps | The agent moves a fixed number of steps and stops. The algorithm stops. |
| 6 | The environment has only one region. A region has more than one agent. Enter a number indicates the steps an agent moves. | Agent array, Region matrix, Number of steps | All agents move a fix number of steps and stop. |
| 7 | The environment has more than one region. Each region has only one agent. Enter a number indicates the steps an agent moves. | Agent array, Region matrix, Number of steps | All agents move a fix number of steps and stop. |
| 8 | The environment has more than one region. Each region has more than one agent. Enter a number indicates the steps an agent moves. | Agent array, Region matrix, Number of steps | All agents move a fix number of steps and stop. |