



1) Environmental Functions

```
# State object == ((x, y), (eaten_corners))
# example1 => ((1, 1), (False))
# example2 => ((28, 11), (True, True, True, False))
```

```
problem.getStartState()
```

```
# return type: tuple(State Object)
# example1 => ((1, 1), (False))
```

```
problem.isGoalState(state_object)
```

```
# return type: bool
```

```
problem.getSuccessors(state_object)
```

```
# return type: array
# (state object, action, cost)
# example => [((12, 11), (False,)), 'North', 1),
              ((13, 10), (False,)), 'East', 1),
              ((11, 10), (False,)), 'West', 1)]
```

```
problem.corners
```

```
# return type: tuple
# (corner coordinates) => ((1, 1), (12, 1))
```

2) Pay attention. The array of actions should be the return object of the depthFirstSearch, uniformCostSearch, and aStarSearch functions.

```
# ['West', 'North', 'East', 'South', 'South']
```