**The following graph is a maze example: Assume A is the entrance. G and g are exits.**

**Corresponding to each distinct grid, there is a state. For given any problem, there is a finite**

Number of states, since the distinct grids are finite. Can states and state-actions generated by a

**] [**

program?

F

RT

(1, 2, 1, 2)

LT

(2, 1, 2, 1)

A

RT

LT

RT

LT

LT

(1, 2, 1, 2)

F

(2, 1, 2, 1)

RT

F

F

F

RT

RT

(1, 2, 1, 2)

(2, 1, 2, 1)

LT

(2, 2, 0, 1)

(2, 0, 1, 2)

LT

LT

LT

RT

LT

LT

LT

RT

RT

LT

RT

(1, 2, 2, 0)

(0, 1, 2, 2)

RT

(1, 2, 1, 2)

(2, 1, 2, 1)

RT

Location A

F

For an agent located in a grid, four percepts may occur.

back

(2, 2, 0, 1)

Top

left 2

2

right

left RT

back 1

1

top 2

RT

(1, 2, 2, 0) )

left 0

back 2

Top 1

right 2

right 0 

back 2

RT

left

right11111

LT

(0, 1, 2, 2))

Top

(2, 0, 1, 2)

LT

LT

LT

RT

R

0 back

2

9G )v

(2, 1, 1, 1) )v

F