

# 1 Learning Curves

## 1.1 Zork1

Plots for individual runs

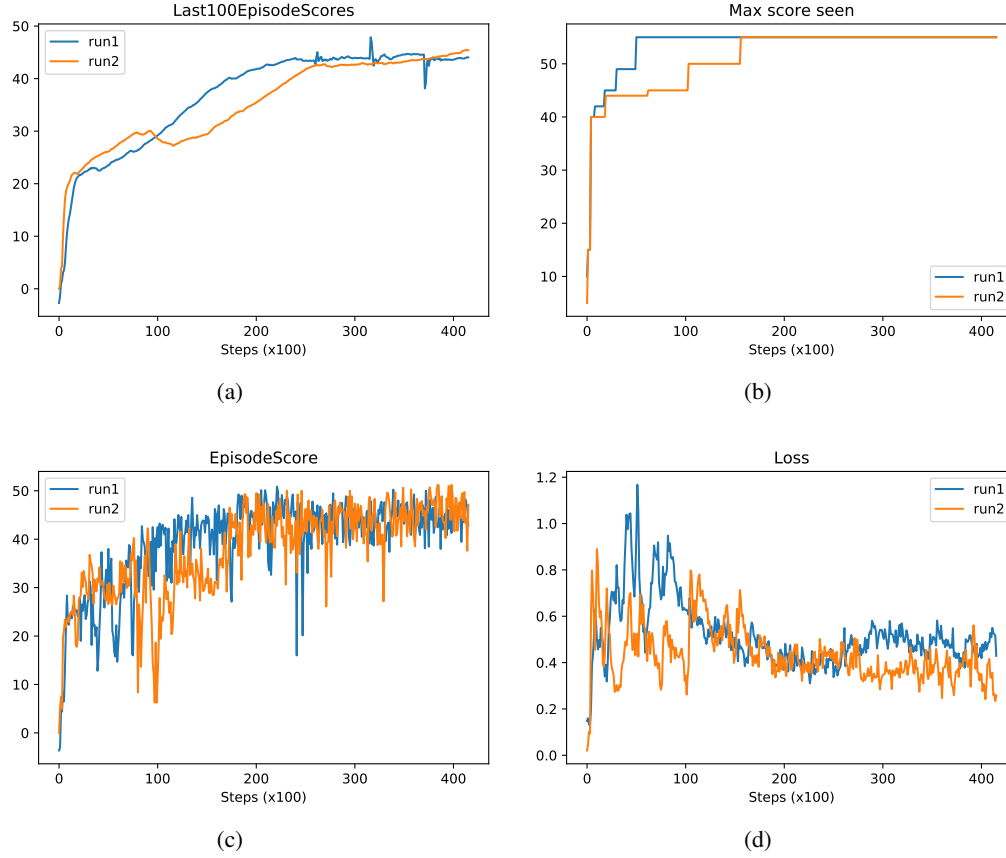


Figure 1: Results for Zork1: Two independent runs of our model (DBERT-DRRN)

## 1.2 Inhumane

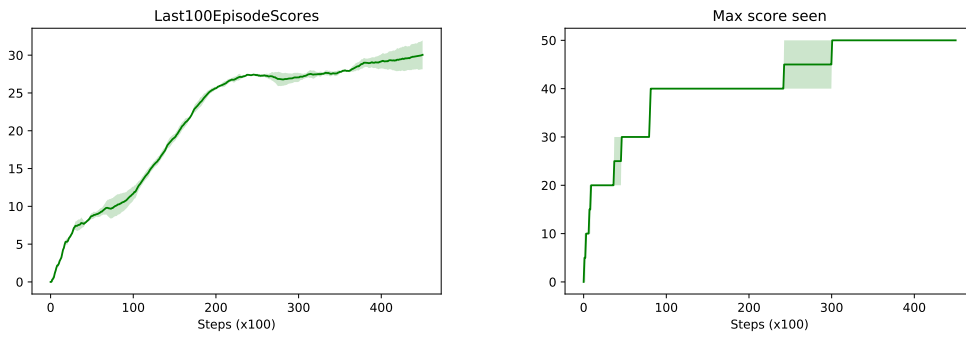


Figure 2: DBERT-DRRN performance results on Inhumane

### 1.3 Jewel

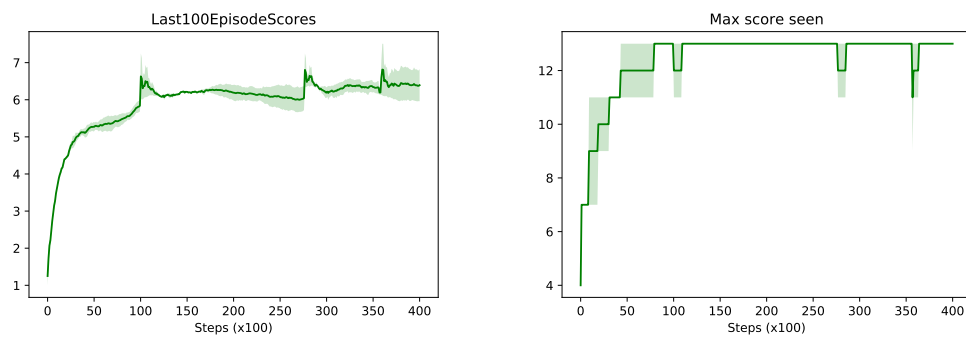


Figure 3: DBERT-DRRN performance results on Jewel

## 2 Gameplay Transcripts for Trained DBERT-DRRN

The transcripts presents the game-play over an episode of 100 steps. For each step, the game state (observation, inventory, description), list of valid actions and corresponding Q-Values estimated by the agent, the action taken, reward received, cumulative score, and whether the episode is over (Done) is given.

List of transcripts:

- [D.1 Zork1](#)
  - [D.1.1 DRRN \(for comparison\)](#)
- [D.2 Inhumane](#)

### 2.1 Zork1

#### STATE 0

Copyright ( c ) 1981, 1982, 1983 Infocom, Inc. All rights reserved. ZORK is a registered trademark of Infocom, Inc. Revision 88 / Serial number 840726 West of House You are standing in an open field west of a white house, with a boarded front door. There is a small mailbox here. You are empty handed. West of House You are standing in an open field west of a white house, with a boarded front door. There is a small mailbox here. Actions: ['west', 'north', 'south', 'open mailbox'] Qvalues: [9.07, 7.74, 7.42, 5.98] Action: west Reward: 0, Score 0, Done False

#### STATE 1

forest this is a forest, with trees in all directions. to the east, there appears to be sunlight. you are empty handed. forest this is a forest, with trees in all directions. to the east, there appears to be sunlight. Actions: ['east', 'go around trees', 'north', 'south'] Qvalues: [10.05, 7.14, 6.8, 6.64] Action: south Reward: 0, Score 0, Done False

#### STATE 2

forest this is a dimly lit forest, with large trees all around. you are empty handed. forest this is a dimly lit forest, with large trees all around. Actions: ['northwest', 'north', 'go around trees', 'west'] Qvalues: [6.59, 6.52, 6.1, 5.37] Action: northwest Reward: 0, Score 0, Done False

#### STATE 3

south of house you are facing the south side of a white house. there is no door here, and all the windows are boarded. you are empty handed. south of house you are facing the south side of a white house. there is no door here, and all the windows are boarded. Actions: ['east', 'south', 'west'] Qvalues: [7.71, 6.15, 5.75] Action: east Reward: 0, Score 0, Done False

#### STATE 4

behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is slightly ajar. you are empty handed. behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is slightly ajar. Actions: ['open window', 'east', 'north', 'south'] Qvalues: [9.39, 7.99, 7.91, 7.4] Action: east Reward: 0, Score 0, Done False

#### STATE 5

clearing you are in a small clearing in a well marked forest path that extends to the east and west. you are empty handed. clearing you are in a small clearing in a well marked forest path that extends to the east and west. Actions: ['west', 'north', 'east', 'south', 'go around forest'] Qvalues: [7.97, 6.53, 6.35, 6.21, 5.76] Action: north Reward: 0, Score 0, Done False

#### STATE 6

forest this is a dimly lit forest, with large trees all around. you are empty handed. you hear in the distance the chirping of a song bird. forest this is a dimly lit forest, with large trees all around. you hear in the distance the chirping of a song bird. Actions: ['south', 'go around trees', 'west', 'east'] Qvalues: [6.83, 6.45, 6.22, 5.98] Action: west Reward: 0, Score 0, Done False

#### STATE 7

forest path this is a path winding through a dimly lit forest. the path heads north south here. one particularly large tree with some low branches stands at the edge of the path. you are empty handed. forest path this is a path winding through a dimly lit forest. the path heads north south here. one particularly large tree with some low branches stands at the edge of the path. you hear in the distance the chirping of a song bird. Actions: ['up', 'go around forest', 'south', 'east', 'north', 'west'] Qvalues: [10.91, 8.65, 8.4, 7.61, 7.09, 5.01] Action: up Reward: 0, Score 0, Done False

#### STATE 8

up a tree you are about 10 feet above the ground nestled among some large branches. the nearest branch above you is above your reach. beside you on the branch is a small bird's nest. in the bird's nest is a large egg encrusted with precious jewels, apparently scavenged by a childless songbird. the egg is covered with fine gold inlay, and ornamented in lapis lazuli and mother of pearl. unlike most eggs, this one is hinged and closed with a delicate looking clasp. the egg appears extremely fragile. you are empty handed. up a tree you are about 10 feet above the ground nestled among some large branches. the nearest branch above you is above your reach. beside you on the branch is a small bird's nest. in the bird's nest is a large egg encrusted with precious jewels, apparently scavenged by a childless songbird. the egg is covered with fine gold inlay, and ornamented in lapis lazuli and mother of pearl. unlike most eggs, this one is hinged and closed with a delicate looking clasp. the egg appears extremely fragile. Actions: ['take egg', 'close nest', 'take nest', 'take on egg', 'down'] Qvalues: [11.59, 4.09, 2.25, 0.82, -4.72] Action: take egg Reward: 5, Score 5, Done False

#### STATE 9

taken. you are carrying : a jewel encrusted egg up a tree you are about 10 feet above the ground nestled among some large branches. the nearest branch above you is above your reach. beside you on the branch is a small bird's nest. you hear in the distance the chirping of a song bird. Actions: ['down', 'close nest', 'put egg in nest', 'take nest', 'take on egg', 'throw egg at nest', 'put down egg'] Qvalues: [8.07, 6.47, 5.62, 5.51, 5.29, 5.04, 4.88] Action: down Reward: 0, Score 5, Done False

#### STATE 10

forest path you are carrying : a jewel encrusted egg forest path this is a path winding through a dimly lit forest. the path heads north south here. one particularly large tree with some low branches stands at the edge of the path. you hear in the distance the chirping of a song bird. Actions: ['south', 'go around forest', 'north', 'east', 'west', 'open egg with all', 'up', 'take on egg', 'throw egg at tree', 'put down egg'] Qvalues: [8.94, 8.82, 8.04, 7.9, 7.49, 7.45, 7.02, 6.23, 6.19, 5.91] Action: east Reward: 0, Score 5, Done False

#### STATE 11

forest you are carrying : a jewel encrusted egg you hear in the distance the chirping of a song bird. forest this is a dimly lit forest, with large trees all around. Actions: ['south', 'go around trees', 'east', 'west', 'open egg with all', 'throw egg at large', 'take on egg', 'put down egg'] Qvalues: [8.72, 7.81, 7.81, 7.49, 7.4, 6.49, 6.14, 6.09] Action: go around trees Reward: 0, Score 5, Done False

#### STATE 12

forest you are carrying : a jewel encrusted egg forest this is a dimly lit forest, with large trees all around. Actions: ['northwest', 'north', 'go around trees', 'west', 'open egg with all', 'take on egg', 'throw egg at large', 'put down egg'] Qvalues: [8.56, 8.06, 7.97, 7.58, 7.44, 6.38, 6.35, 6.14] Action: northwest Reward: 0, Score 5, Done False

#### STATE 13

south of house you are carrying : a jewel encrusted egg south of house you are facing the south side of a white house. there is no door here, and all the windows are boarded. Actions: ['east', 'south', 'open egg with all', 'west', 'take on egg', 'put down egg', 'throw egg at house'] Qvalues: [9.39, 8.03, 7.8, 7.47, 5.81, 5.77, 5.59] Action: east Reward: 0, Score 5, Done False

#### STATE 14

behind house you are carrying : a jewel encrusted egg behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is

slightly ajar. Actions: ['open window', 'open egg with all', 'south', 'east', 'north', 'put down egg', 'take on egg', 'throw egg at path'] Qvalues: [10.97, 9.79, 9.03, 8.74, 8.71, 7.78, 7.72, 6.85] Action: open window Reward: 0, Score 5, Done False

#### STATE 15

with great effort, you open the window far enough to allow entry. you are carrying : a jewel encrusted egg behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is open. Actions: ['west', 'close window', 'open egg with all', 'east', 'south', 'north', 'put down egg', 'take on egg', 'throw egg at path'] Qvalues: [11.56, 9.85, 9.56, 9.54, 9.12, 8.97, 7.34, 6.58, 6.2] Action: east Reward: 0, Score 5, Done False

#### STATE 16

clearing you are carrying : a jewel encrusted egg clearing you are in a small clearing in a well marked forest path that extends to the east and west. Actions: ['west', 'open egg with all', 'east', 'south', 'north', 'go around forest', 'put down egg', 'throw egg at forest', 'take on egg'] Qvalues: [9.27, 8.16, 8.13, 7.81, 7.76, 7.49, 6.35, 6.08, 5.98] Action: west Reward: 0, Score 5, Done False

#### STATE 17

behind house you are carrying : a jewel encrusted egg behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is open. Actions: ['open egg with all', 'close window', 'west', 'east', 'south', 'north', 'put down egg', 'take on egg', 'throw egg at path'] Qvalues: [9.71, 9.64, 9.54, 8.65, 8.58, 8.54, 7.81, 7.27, 6.8] Action: west Reward: 10, Score 15, Done False

#### STATE 18

kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. on the table is an elongated brown sack, smelling of hot peppers. a bottle is sitting on the table. the glass bottle contains : a quantity of water you are carrying : a jewel encrusted egg kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. on the table is an elongated brown sack, smelling of hot peppers. a bottle is sitting on the table. the glass bottle contains : a quantity of water Actions: ['west', 'close window', 'open sack', 'east', 'open bottle', 'take sack', 'put down egg', 'put egg on table', 'throw egg at bottle', 'take on egg', 'take bottle', 'take all', 'up', 'jump'] Qvalues: [21.67, 9.94, 9.52, 9.26, 8.74, 7.63, 7.6, 7.41, 6.13, 5.58, 4.72, 3.89, -2.46, -11.57] Action: west Reward: 0, Score 15, Done False

#### STATE 19

living room you are in the living room. there is a doorway to the east, a wooden door with strange gothic lettering to the west, which appears to be nailed shut, a trophy case, and a large oriental rug in the center of the room. above the trophy case hangs an elvish sword of great antiquity. a battery powered brass lantern is on the trophy case. you are carrying : a jewel encrusted egg living room you are in the living room. there is a doorway to the east, a wooden door with strange gothic lettering to the west, which appears to be nailed shut, a trophy case, and a large oriental rug in the center of the room. above the trophy case hangs an elvish sword of great antiquity. a battery powered brass lantern is on the trophy case. Actions: ['take lantern', 'push rug', 'open case', 'turn on lantern', 'throw egg at case', 'throw egg at lantern', 'take sword', 'put down egg', 'take on egg', 'take all', 'east'] Qvalues: [25.17, 25.08, 24.82, 20.51, 20.26, 20.21, 17.84, 17.42, 17.37, 13.44, 13.38] Action: push rug Reward: 0, Score 15, Done False

#### STATE 20

with a great effort, the rug is moved to one side of the room, revealing the dusty cover of a closed trap door. you are carrying : a jewel encrusted egg living room you are in the living room. there is a doorway to the east, a wooden door with strange gothic lettering to the west, which appears to be nailed shut, a trophy case, and a closed trap door at your feet. above the trophy case hangs an elvish sword of great antiquity. a battery powered brass lantern is on the trophy case. Actions: ['take lantern', 'open case', 'open trap', 'turn on lantern', 'throw egg at case', 'throw egg at lantern', 'take

sword', 'take on egg', 'put down egg', 'take all', 'east'] Qvalues: [27.57, 26.49, 26.36, 22.97, 22.6, 21.73, 19.57, 19.16, 19.04, 15.18, 13.41] Action: open case Reward: 0, Score 15, Done False

#### STATE 21

opened. you are carrying : a jewel encrusted egg living room you are in the living room. there is a doorway to the east, a wooden door with strange gothic lettering to the west, which appears to be nailed shut, a trophy case, and a closed trap door at your feet. above the trophy case hangs an elvish sword of great antiquity. a battery powered brass lantern is on the trophy case. Actions: ['put egg in case', 'take lantern', 'open trap', 'close case', 'turn on lantern', 'throw egg at case', 'throw egg at lantern', 'fill case with egg', 'take sword', 'take on egg', 'put down egg', 'take all', 'east'] Qvalues: [27.91, 27.9, 25.05, 24.38, 23.28, 22.29, 21.63, 20.13, 19.53, 19.27, 18.89, 15.31, 12.56] Action: take lantern Reward: 0, Score 15, Done False

#### STATE 22

taken. you are carrying : a brass lantern a jewel encrusted egg living room you are in the living room. there is a doorway to the east, a wooden door with strange gothic lettering to the west, which appears to be nailed shut, a trophy case, and a closed trap door at your feet. above the trophy case hangs an elvish sword of great antiquity. Actions: ['put egg in case', 'open trap', 'close case', 'open egg with lantern', 'put all in case', 'turn on lantern', 'throw egg at case', 'put lantern in case', 'put down lantern', 'fill case with egg', 'take sword', 'throw lantern at case', 'take on egg', 'throw lantern at egg', 'put down all', 'put down egg', 'east'] Qvalues: [30.7, 28.07, 27.18, 26.67, 24.57, 23.87, 22.85, 22.05, 21.95, 21.19, 20.45, 20.32, 19.95, 19.49, 19.48, 19.32, 14.5] Action: put egg in case Reward: 5, Score 20, Done False

#### STATE 23

done. you are carrying : a brass lantern living room you are in the living room. there is a doorway to the east, a wooden door with strange gothic lettering to the west, which appears to be nailed shut, a trophy case, and a closed trap door at your feet. above the trophy case hangs an elvish sword of great antiquity. your collection of treasures consists of : a jewel encrusted egg Actions: ['open trap', 'close case', 'open egg with lantern', 'take egg from sword', 'turn on lantern', 'take egg', 'put down lantern', 'put lantern in case', 'throw lantern at case', 'take sword', 'throw lantern at egg', 'take on egg', 'east'] Qvalues: [30.74, 27.85, 27.84, 27.56, 25.61, 24.67, 24.36, 23.05, 22.62, 22.33, 21.85, 21.0, 15.86] Action: open trap Reward: 0, Score 20, Done False

#### STATE 24

the door reluctantly opens to reveal a rickety staircase descending into darkness. you are carrying : a brass lantern living room you are in the living room. there is a doorway to the east, a wooden door with strange gothic lettering to the west, which appears to be nailed shut, a trophy case, and a rug lying beside an open trap door. above the trophy case hangs an elvish sword of great antiquity. your collection of treasures consists of : a jewel encrusted egg Actions: ['down', 'open egg with lantern', 'close case', 'take egg from sword', 'close trap', 'turn on lantern', 'take egg', 'put down lantern', 'put lantern in case', 'throw lantern at case', 'take sword', 'throw lantern at egg', 'take on egg', 'east'] Qvalues: [32.52, 27.82, 27.35, 27.33, 26.53, 26.21, 24.31, 24.03, 23.0, 22.09, 21.81, 21.24, 20.86, 15.54] Action: down Reward: 25, Score 45, Done False

#### STATE 25

you have moved into a dark place. the trap door crashes shut, and you hear someone barring it. it is pitch black. you are likely to be eaten by a grue. you are carrying : a brass lantern it is pitch black. you are likely to be eaten by a grue. Actions: ['turn on lantern', 'put down lantern', 'throw lantern at grue', 'south', 'east', 'north'] Qvalues: [7.76, -1.33, -3.82, -4.74, -7.48, -10.65] Action: turn on lantern Reward: 0, Score 45, Done False

#### STATE 26

the brass lantern is now on. cellar you are in a dark and damp cellar with a narrow passageway leading north, and a crawlway to the south. on the west is the bottom of a steep metal ramp which is unclimbable. you are carrying : a brass lantern ( providing light ) cellar you are in a dark and damp cellar with a narrow passageway leading north, and a crawlway to the south. on the west is the bottom of a steep metal ramp which is unclimbable. Actions: ['south', 'put out lantern', 'put down lantern', 'north', 'throw lantern at crawlway'] Qvalues: [8.37, 4.86, 4.5, 4.2, 0.44] Action:

south Reward: 0, Score 45, Done False

#### STATE 27

east of chasm you are on the east edge of a chasm, the bottom of which cannot be seen. a narrow passage goes north, and the path you are on continues to the east. you are carrying : a brass lantern ( providing light ) east of chasm you are on the east edge of a chasm, the bottom of which cannot be seen. a narrow passage goes north, and the path you are on continues to the east. Actions: ['east', 'north', 'put out lantern', 'put down lantern', 'throw lantern at path', 'jump'] Qvalues: [9.28, 4.51, 4.16, 3.46, 0.51, -7.56] Action: east Reward: 0, Score 45, Done False

#### STATE 28

gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. fortunately, there is still one chance for you to be a vandal, for on the far wall is a painting of unparalleled beauty. you are carrying : a brass lantern ( providing light ) gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. fortunately, there is still one chance for you to be a vandal, for on the far wall is a painting of unparalleled beauty. Actions: ['take art', 'put out lantern', 'put down lantern', 'throw lantern at art', 'north', 'west'] Qvalues: [10.35, 10.21, 8.89, 6.58, 6.06, 3.92] Action: take art Reward: 4, Score 49, Done False

#### STATE 29

taken. you are carrying : a painting a brass lantern ( providing light ) gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['north', 'put out lantern', 'put down lantern', 'put down art', 'west', 'put down all', 'throw art at lantern'] Qvalues: [7.74, 7.08, 6.64, 6.36, 6.36, 6.35, 4.02] Action: north Reward: 0, Score 49, Done False

#### STATE 30

studio this appears to have been an artist's studio. the walls and floors are splattered with paints of 69 different colors. strangely enough, nothing of value is hanging here. at the south end of the room is an open door ( also covered with paint ). a dark and narrow chimney leads up from a fireplace ; although you might be able to get up it, it seems unlikely you could get back down. loosely attached to a wall is a small piece of paper. you are carrying : a painting a brass lantern ( providing light ) studio this appears to have been an artist's studio. the walls and floors are splattered with paints of 69 different colors. strangely enough, nothing of value is hanging here. at the south end of the room is an open door ( also covered with paint ). a dark and narrow chimney leads up from a fireplace ; although you might be able to get up it, it seems unlikely you could get back down. loosely attached to a wall is a small piece of paper. Actions: ['up', 'put out lantern', 'south', 'put down lantern', 'take manual', 'put down painting', 'put down all', 'throw lantern at manual'] Qvalues: [8.6, 7.77, 6.81, 6.69, 6.59, 6.38, 6.37, 4.9] Action: put out lantern Reward: 0, Score 49, Done False

#### STATE 31

the brass lantern is now off. it is now pitch black. you are carrying : a painting a brass lantern it is pitch black. you are likely to be eaten by a grue. Actions: ['up', 'turn on lantern', 'south', 'put down lantern', 'put down all', 'put down painting', 'throw lantern at grue', 'north'] Qvalues: [8.42, 5.97, 5.91, 4.04, 3.45, 3.42, 2.89, 1.35] Action: up Reward: 0, Score 49, Done False

#### STATE 32

kitchen on the table is an elongated brown sack, smelling of hot peppers. a bottle is sitting on the table. the glass bottle contains : a quantity of water you are carrying : a painting a brass lantern kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. on the table is an elongated brown sack, smelling of hot peppers. a bottle is sitting on the table. the glass bottle contains : a quantity of water Actions: ['west', 'open bottle', 'close window', 'open sack', 'east', 'put lantern on table', 'take sack', 'put down lantern', 'throw lantern at bottle', 'turn on lantern', 'put down all', 'put down painting', 'take bottle', 'take all', 'put painting on table', 'up', 'jump'] Qvalues: [10.1, 9.01, 8.93, 8.91, 8.41, 8.23, 8.14, 8.08, 7.97, 7.87, 7.63, 7.56, 7.29, 6.6, 6.56, 5.92,

-2.09] Action: open bottle Reward: 0, Score 49, Done False

#### STATE 33

opened. you are carrying : a painting a brass lantern kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. on the table is an elongated brown sack, smelling of hot peppers. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water Actions: ['west', 'open sack', 'close window', 'close bottle', 'east', 'put lantern on table', 'take sack', 'throw lantern at bottle', 'put down lantern', 'turn on lantern', 'put down all', 'put down painting', 'take bottle', 'put painting on table', 'take all', 'up', 'jump'] Qvalues: [10.07, 9.15, 9.04, 8.95, 8.73, 8.54, 8.45, 8.35, 8.34, 8.17, 7.95, 7.73, 7.63, 6.95, 6.95, 5.69, -2.51] Action: put lantern on table Reward: 0, Score 49, Done False

#### STATE 34

done. you are carrying : a painting kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. on the table is an elongated brown sack, smelling of hot peppers. sitting on the kitchen table is : a brass lantern a glass bottle the glass bottle contains : a quantity of water Actions: ['west', 'take lantern', 'open sack', 'close bottle', 'east', 'take sack', 'close window', 'throw painting at lantern', 'turn on lantern', 'take bottle', 'put down painting', 'take all', 'up', 'jump'] Qvalues: [9.0, 8.75, 8.31, 8.18, 8.11, 8.08, 8.02, 7.95, 7.84, 7.16, 7.12, 6.95, 4.29, -4.68] Action: close bottle Reward: 0, Score 49, Done False

#### STATE 35

closed. you are carrying : a painting kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. on the table is an elongated brown sack, smelling of hot peppers. sitting on the kitchen table is : a brass lantern a glass bottle the glass bottle contains : a quantity of water Actions: ['west', 'take lantern', 'open bottle', 'open sack', 'close window', 'take sack', 'east', 'throw painting at lantern', 'turn on lantern', 'take bottle', 'put down painting', 'take all', 'up', 'jump'] Qvalues: [9.01, 8.76, 8.58, 8.53, 8.18, 8.18, 8.17, 7.97, 7.94, 7.29, 7.17, 7.02, 4.29, -4.77] Action: take lantern Reward: 0, Score 49, Done False

#### STATE 36

taken. you are carrying : a brass lantern a painting kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. on the table is an elongated brown sack, smelling of hot peppers. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water Actions: ['west', 'open bottle', 'open sack', 'close window', 'east', 'put lantern on table', 'take sack', 'throw lantern at bottle', 'put down lantern', 'turn on lantern', 'put down all', 'put down painting', 'take bottle', 'take all', 'put painting on table', 'up', 'jump'] Qvalues: [9.82, 9.15, 9.08, 9.02, 8.61, 8.37, 8.31, 8.15, 8.15, 8.07, 7.82, 7.61, 7.53, 6.82, 6.8, 6.16, -1.96] Action: open bottle Reward: 0, Score 49, Done False

#### STATE 37

opened. you are carrying : a brass lantern a painting kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. on the table is an elongated brown sack, smelling of hot peppers. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water Actions: ['west', 'open sack', 'close window', 'close bottle', 'east', 'put lantern on table', 'take sack', 'put down lantern', 'throw lantern at bottle', 'turn on lantern', 'put down all', 'take bottle', 'put down painting', 'take all', 'put painting on table', 'up', 'jump'] Qvalues: [9.93, 9.02, 8.99, 8.76, 8.6, 8.48, 8.27, 8.14, 8.12, 7.97, 7.84, 7.38, 7.38, 6.84, 6.52, 5.84, -2.44] Action: close window Reward: 0, Score 49, Done False



#### STATE 38

the window closes ( more easily than it opened ). you are carrying : a brass lantern a painting kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is slightly ajar. on the table is an elongated brown sack, smelling of hot peppers. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water Actions: ['open window', 'west', 'open sack', 'close bottle', 'put lantern on table', 'take sack', 'put down lantern', 'throw lantern at bottle', 'turn on lantern', 'put down all', 'put down painting', 'take bottle', 'take all', 'put painting on table', 'up', 'jump'] Qvalues: [9.55, 9.15, 8.8, 8.59, 8.13, 8.0, 7.89, 7.86, 7.71, 7.48, 7.33, 7.22, 6.5, 6.43, 6.4, -1.57] Action: put down all Reward: 0, Score 49, Done False

#### STATE 39

brass lantern : dropped. painting : dropped. you are empty handed. kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is slightly ajar. a painting by a neglected genius is here. there is a brass lantern ( battery powered ) here. on the table is an elongated brown sack, smelling of hot peppers. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water Actions: ['open window', 'open sack', 'close bottle', 'turn on lantern', 'west', 'take painting', 'take all', 'take lantern', 'take sack', 'take bottle', 'take all from table', 'up', 'jump'] Qvalues: [6.81, 6.37, 6.11, 6.08, 5.92, 5.9, 5.89, 5.83, 5.7, 5.25, 5.0, 2.44, -6.37] Action: open window Reward: 0, Score 49, Done False

#### STATE 40

with great effort, you open the window far enough to allow entry. you are empty handed. kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. a painting by a neglected genius is here. there is a brass lantern ( battery powered ) here. on the table is an elongated brown sack, smelling of hot peppers. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water Actions: ['east', 'open sack', 'west', 'close bottle', 'close window', 'turn on lantern', 'take sack', 'take lantern', 'take all', 'take painting', 'take bottle', 'take all from table', 'up', 'jump'] Qvalues: [6.76, 6.36, 6.29, 6.08, 6.06, 5.9, 5.59, 5.56, 5.48, 5.17, 5.14, 4.9, 0.7, -8.47] Action: east Reward: 0, Score 49, Done False

#### STATE 41

behind house you are empty handed. behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is open. Actions: ['close window', 'north', 'west', 'east', 'south'] Qvalues: [7.41, 6.37, 6.31, 6.13, 5.86] Action: west Reward: 0, Score 49, Done False

#### STATE 42

kitchen a painting by a neglected genius is here. there is a brass lantern ( battery powered ) here. on the table is an elongated brown sack, smelling of hot peppers. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water you are empty handed. kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. a painting by a neglected genius is here. there is a brass lantern ( battery powered ) here. on the table is an elongated brown sack, smelling of hot peppers. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water Actions: ['west', 'east', 'open sack', 'close window', 'close bottle', 'take lantern', 'turn on lantern', 'take sack', 'take painting', 'take bottle', 'take all', 'take all from table', 'up', 'jump'] Qvalues: [9.43, 8.18, 7.32, 7.28, 6.96, 6.84, 6.75, 6.41, 5.8, 5.8, 5.79, 5.22, 1.47, -7.43] Action: take painting Reward: 0, Score 49, Done False

#### STATE 43

taken. you are carrying : a painting kitchen you are in the kitchen of the white house. a table

seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. there is a brass lantern ( battery powered ) here. on the table is an elongated brown sack, smelling of hot peppers. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water Actions: ['take lantern', 'west', 'east', 'open sack', 'close bottle', 'take sack', 'close window', 'turn on lantern', 'throw painting at lantern', 'take bottle', 'take all', 'put down painting', 'take all from table', 'put painting on table', 'up', 'jump'] Qvalues: [8.45, 8.2, 8.0, 7.88, 7.75, 7.68, 7.63, 7.61, 7.42, 6.97, 6.81, 6.75, 6.24, 6.19, 5.3, -3.67] Action: take lantern Reward: 0, Score 49, Done False

#### STATE 44

taken. you are carrying : a brass lantern a painting kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. on the table is an elongated brown sack, smelling of hot peppers. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water Actions: ['west', 'open sack', 'close window', 'close bottle', 'east', 'put lantern on table', 'take sack', 'turn on lantern', 'put down lantern', 'throw lantern at bottle', 'put down all', 'take bottle', 'put down painting', 'take all', 'put painting on table', 'up', 'jump'] Qvalues: [9.89, 8.94, 8.93, 8.69, 8.64, 8.29, 8.14, 8.0, 8.0, 7.92, 7.64, 7.39, 7.27, 6.79, 6.4, 6.21, -2.21] Action: west Reward: 0, Score 49, Done False

#### STATE 45

living room above the trophy case hangs an elvish sword of great antiquity. your collection of treasures consists of : a jewel encrusted egg you are carrying : a brass lantern a painting living room you are in the living room. there is a doorway to the east, a wooden door with strange gothic lettering to the west, which appears to be nailed shut, a trophy case, and a closed trap door at your feet. above the trophy case hangs an elvish sword of great antiquity. your collection of treasures consists of : a jewel encrusted egg Actions: ['put painting in case', 'put all in case', 'put down painting', 'take treasures from sword', 'put down all', 'open egg with lantern', 'put down lantern', 'put lantern in case', 'take sword', 'close case', 'turn on lantern', 'throw lantern at case', 'throw painting at treasures', 'open trap', 'throw lantern at treasures', 'take treasures', 'take on treasures', 'east'] Qvalues: [10.96, 10.79, 10.25, 10.18, 9.93, 9.89, 9.77, 9.74, 9.61, 9.59, 9.55, 9.5, 9.43, 9.4, 8.77, 8.09, 7.49, 6.26] Action: put all in case Reward: 6, Score 55, Done False

#### STATE 46

brass lantern : done. painting : done. you are empty handed. living room you are in the living room. there is a doorway to the east, a wooden door with strange gothic lettering to the west, which appears to be nailed shut, a trophy case, and a closed trap door at your feet. above the trophy case hangs an elvish sword of great antiquity. your collection of treasures consists of : a painting a brass lantern a jewel encrusted egg Actions: ['east', 'open trap', 'turn on lantern', 'take lantern', 'close case', 'take on egg', 'take egg from sword', 'take sword', 'take painting', 'take egg', 'take all from case'] Qvalues: [4.89, 4.27, 4.15, 3.98, 3.98, 3.72, 3.7, 3.69, 3.19, 3.05, 1.15] Action: east Reward: 0, Score 55, Done False

#### STATE 47

kitchen on the table is an elongated brown sack, smelling of hot peppers. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water you are empty handed. kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. on the table is an elongated brown sack, smelling of hot peppers. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water Actions: ['west', 'east', 'open sack', 'close window', 'close bottle', 'take sack', 'take bottle', 'take all', 'up', 'jump'] Qvalues: [7.6, 7.38, 6.33, 6.29, 6.05, 5.44, 5.09, 4.99, 1.82, -7.47] Action: east Reward: 0, Score 55, Done False

#### STATE 48

behind house you are empty handed. behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is open. Actions:

['close window', 'north', 'east', 'west', 'south'] Qvalues: [7.72, 6.65, 6.54, 6.41, 6.24] Action: close window Reward: 0, Score 55, Done False

#### STATE 49

the window closes ( more easily than it opened ). you are empty handed. behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is slightly ajar. Actions: ['open window', 'north', 'south', 'east'] Qvalues: [8.61, 6.8, 6.53, 6.42] Action: open window Reward: 0, Score 55, Done False

#### STATE 50

with great effort, you open the window far enough to allow entry. you are empty handed. behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is open. Actions: ['west', 'close window', 'north', 'east', 'south'] Qvalues: [9.23, 7.55, 6.84, 6.76, 6.48] Action: west Reward: 0, Score 55, Done False

#### STATE 51

kitchen on the table is an elongated brown sack, smelling of hot peppers. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water you are empty handed. kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. on the table is an elongated brown sack, smelling of hot peppers. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water Actions: ['east', 'open sack', 'close bottle', 'close window', 'take sack', 'take bottle', 'take all', 'west', 'up', 'jump'] Qvalues: [7.0, 6.25, 5.99, 5.77, 5.28, 5.25, 5.2, 5.18, 3.37, -6.41] Action: take sack Reward: 0, Score 55, Done False

#### STATE 52

taken. you are carrying : a brown sack kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water Actions: ['put sack on table', 'east', 'put down sack', 'west', 'take bottle', 'close bottle', 'open sack', 'close window', 'up', 'jump'] Qvalues: [5.79, 5.65, 5.52, 5.38, 5.1, 5.03, 5.0, 4.56, 3.88, -4.0] Action: put sack on table Reward: 0, Score 55, Done False

#### STATE 53

done. you are empty handed. kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. sitting on the kitchen table is : a brown sack a glass bottle the glass bottle contains : a quantity of water Actions: ['east', 'open sack', 'west', 'close bottle', 'close window', 'take sack', 'take bottle', 'take all', 'up', 'jump'] Qvalues: [6.97, 5.93, 5.76, 5.66, 5.45, 5.06, 5.0, 4.82, 3.54, -5.91] Action: east Reward: 0, Score 55, Done False

#### STATE 54

behind house you are empty handed. behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is open. Actions: ['close window', 'north', 'east', 'west', 'south'] Qvalues: [7.59, 6.53, 6.4, 6.29, 6.18] Action: south Reward: 0, Score 55, Done False

#### STATE 55

south of house you are empty handed. south of house you are facing the south side of a white house. there is no door here, and all the windows are boarded. Actions: ['east', 'south', 'west'] Qvalues: [6.57, 5.66, 4.74] Action: east Reward: 0, Score 55, Done False

#### STATE 56

behind house you are empty handed. behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is open. Actions: ['close window', 'north', 'east', 'south', 'west'] Qvalues: [7.37, 6.67, 6.36, 6.29, 5.95] Action:

close window Reward: 0, Score 55, Done False

#### STATE 57

the window closes ( more easily than it opened ). you are empty handed. behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is slightly ajar. Actions: ['open window', 'north', 'south', 'east'] Qvalues: [8.24, 6.57, 6.44, 6.12] Action: open window Reward: 0, Score 55, Done False

#### STATE 58

with great effort, you open the window far enough to allow entry. you are empty handed. behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is open. Actions: ['west', 'close window', 'north', 'east', 'south'] Qvalues: [8.37, 7.33, 6.58, 6.38, 6.19] Action: close window Reward: 0, Score 55, Done False

#### STATE 59

the window closes ( more easily than it opened ). you are empty handed. behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is slightly ajar. Actions: ['open window', 'north', 'south', 'east'] Qvalues: [8.14, 6.58, 6.43, 6.16] Action: east Reward: 0, Score 55, Done False

#### STATE 60

clearing you are empty handed. clearing you are in a small clearing in a well marked forest path that extends to the east and west. Actions: ['west', 'south', 'north', 'east', 'go around forest'] Qvalues: [6.88, 5.64, 5.62, 5.59, 5.35] Action: south Reward: 0, Score 55, Done False

#### STATE 61

forest you are empty handed. forest this is a dimly lit forest, with large trees all around. Actions: ['northwest', 'north', 'go around trees', 'west'] Qvalues: [6.36, 6.01, 5.76, 5.31] Action: northwest Reward: 0, Score 55, Done False

#### STATE 62

south of house you are empty handed. south of house you are facing the south side of a white house. there is no door here, and all the windows are boarded. Actions: ['east', 'south', 'west'] Qvalues: [6.54, 5.42, 5.03] Action: east Reward: 0, Score 55, Done False

#### STATE 63

behind house you are empty handed. behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is slightly ajar. Actions: ['open window', 'north', 'south', 'east'] Qvalues: [8.04, 6.16, 6.05, 5.93] Action: open window Reward: 0, Score 55, Done False

#### STATE 64

with great effort, you open the window far enough to allow entry. you are empty handed. behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is open. Actions: ['west', 'close window', 'north', 'east', 'south'] Qvalues: [8.2, 7.53, 7.02, 6.89, 6.46] Action: west Reward: 0, Score 55, Done False

#### STATE 65

kitchen sitting on the kitchen table is : a brown sack a glass bottle the glass bottle contains : a quantity of water you are empty handed. kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. sitting on the kitchen table is : a brown sack a glass bottle the glass bottle contains : a quantity of water Actions: ['east', 'west', 'open sack', 'close bottle', 'close window', 'take sack', 'take bottle', 'take all', 'up', 'jump'] Qvalues: [7.18, 6.16, 5.93, 5.53, 5.5, 4.9, 4.69, 4.64, 2.8, -6.25] Action: west Reward: 0, Score 55, Done False

#### STATE 66

living room above the trophy case hangs an elvish sword of great antiquity. your collection of treasures consists of : a painting a brass lantern a jewel encrusted egg you are empty handed. living room you are in the living room. there is a doorway to the east, a wooden door with strange gothic lettering to the west, which appears to be nailed shut, a trophy case, and a closed trap door at your feet. above the trophy case hangs an elvish sword of great antiquity. your collection of treasures consists of : a painting a brass lantern a jewel encrusted egg Actions: ['east', 'open trap', 'close case', 'turn on lantern', 'take egg from sword', 'take sword', 'take on egg', 'take lantern', 'take egg', 'take painting', 'take all from case'] Qvalues: [5.2, 4.77, 4.54, 4.41, 4.18, 4.15, 4.09, 4.06, 3.41, 3.14, 1.54] Action: east Reward: 0, Score 55, Done False

#### STATE 67

kitchen sitting on the kitchen table is : a brown sack a glass bottle the glass bottle contains : a quantity of water you are empty handed. kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. sitting on the kitchen table is : a brown sack a glass bottle the glass bottle contains : a quantity of water Actions: ['east', 'open sack', 'close bottle', 'west', 'close window', 'take all', 'take sack', 'take bottle', 'up', 'jump'] Qvalues: [6.58, 5.57, 5.2, 5.13, 5.03, 4.57, 4.56, 4.5, 3.0, -6.25] Action: open sack Reward: 0, Score 55, Done False

#### STATE 68

opening the brown sack reveals a lunch, and a clove of garlic. you are empty handed. kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. sitting on the kitchen table is : a brown sack the brown sack contains : a lunch a clove of garlic a glass bottle the glass bottle contains : a quantity of water Actions: ['east', 'west', 'close sack', 'close bottle', 'close window', 'take all from sack', 'take sack', 'take garlic', 'take food', 'take all', 'take bottle', 'up', 'jump'] Qvalues: [6.66, 5.33, 5.29, 5.0, 4.84, 4.49, 4.48, 4.46, 4.45, 4.26, 4.17, 2.18, -6.95] Action: close bottle Reward: 0, Score 55, Done False

#### STATE 69

closed. you are empty handed. kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. sitting on the kitchen table is : a brown sack the brown sack contains : a lunch a clove of garlic a glass bottle the glass bottle contains : a quantity of water Actions: ['east', 'open bottle', 'close sack', 'west', 'take all from sack', 'take sack', 'close window', 'take food', 'take garlic', 'take bottle', 'take all', 'up', 'jump'] Qvalues: [6.26, 5.2, 5.13, 4.97, 4.6, 4.55, 4.52, 4.43, 4.39, 4.33, 4.22, 2.04, -7.58] Action: take all from sack Reward: 0, Score 55, Done False

#### STATE 70

lunch : taken. clove of garlic : taken. you are carrying : a clove of garlic a lunch kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. sitting on the kitchen table is : a brown sack a glass bottle the glass bottle contains : a quantity of water Actions: ['put all in sack', 'put all on table', 'put down all', 'put food on table', 'put garlic on table', 'put down food', 'west', 'east', 'put food in sack', 'take sack', 'open bottle', 'put garlic in sack', 'put down garlic', 'close sack', 'take bottle', 'take all', 'close window', 'up', 'jump'] Qvalues: [5.74, 5.73, 5.59, 5.43, 5.38, 5.34, 5.34, 5.3, 5.27, 5.26, 5.25, 5.18, 4.96, 4.91, 4.61, 4.48, 4.17, -2.97] Action: put down garlic Reward: 0, Score 55, Done False

#### STATE 71

dropped. you are carrying : a lunch kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. there is a clove of garlic here. sitting on the kitchen table is : a brown sack a glass bottle the glass bottle contains : a quantity of water Actions: ['put food on table', 'put down food',

'east', 'west', 'take garlic', 'put food in sack', 'take sack', 'open bottle', 'close sack', 'take bottle', 'take all', 'close window', 'take all from table', 'up', 'jump'] Qvalues: [5.24, 5.24, 5.21, 5.16, 5.11, 4.98, 4.98, 4.86, 4.77, 4.57, 4.45, 4.25, 4.16, 2.27, -6.13] Action: put food in sack Reward: 0, Score 55, Done False

#### STATE 72

done. you are empty handed. kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. there is a clove of garlic here. sitting on the kitchen table is : a brown sack the brown sack contains : a lunch a glass bottle the glass bottle contains : a quantity of water Actions: ['east', 'close sack', 'open bottle', 'west', 'take food', 'take garlic', 'take sack', 'take all', 'close window', 'take bottle', 'take all from table', 'up', 'jump'] Qvalues: [6.19, 5.16, 5.15, 4.86, 4.61, 4.54, 4.51, 4.48, 4.48, 4.37, 3.97, 2.19, -7.34] Action: take sack Reward: 0, Score 55, Done False

#### STATE 73

taken. you are carrying : a brown sack the brown sack contains : a lunch kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. there is a clove of garlic here. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water Actions: ['put sack on table', 'put food on table', 'put down sack', 'put down food', 'west', 'take food', 'open bottle', 'shake sack', 'take garlic', 'east', 'close sack', 'take bottle', 'take all', 'close window', 'up', 'jump'] Qvalues: [5.56, 5.37, 5.37, 5.31, 5.31, 5.22, 5.13, 5.13, 5.1, 5.01, 4.91, 4.82, 4.57, 4.44, 3.26, -4.31] Action: shake sack Reward: 0, Score 55, Done False

#### STATE 74

the contents of the brown sack spills to the ground. you are carrying : a brown sack kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. a hot pepper sandwich is here. there is a clove of garlic here. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water Actions: ['put sack on table', 'west', 'put down sack', 'take food', 'east', 'take garlic', 'open bottle', 'take bottle', 'close sack', 'take all', 'close window', 'up', 'jump'] Qvalues: [5.61, 5.48, 5.42, 5.32, 5.28, 5.14, 5.1, 5.01, 4.85, 4.49, 4.37, 3.37, -4.37] Action: close sack Reward: 0, Score 55, Done False

#### STATE 75

closed. you are carrying : a brown sack kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. a hot pepper sandwich is here. there is a clove of garlic here. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water Actions: ['put sack on table', 'west', 'put down sack', 'take food', 'east', 'take garlic', 'open bottle', 'open sack', 'take bottle', 'take all', 'close window', 'up', 'jump'] Qvalues: [5.67, 5.52, 5.47, 5.4, 5.32, 5.26, 5.2, 5.01, 4.97, 4.7, 4.48, 2.85, -4.86] Action: put down sack Reward: 0, Score 55, Done False

#### STATE 76

dropped. you are empty handed. kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. there is a brown sack here. a hot pepper sandwich is here. there is a clove of garlic here. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water Actions: ['east', 'west', 'open sack', 'open bottle', 'take sack', 'take food', 'take garlic', 'take all', 'close window', 'take bottle', 'up', 'jump'] Qvalues: [6.33, 5.31, 5.27, 5.17, 4.77, 4.69, 4.63, 4.58, 4.57, 4.47, 1.86, -7.42] Action: east Reward: 0, Score 55, Done False

#### STATE 77

behind house you are empty handed. behind house you are behind the white house. a path leads into

the forest to the east. in one corner of the house there is a small window which is open. Actions: ['close window', 'north', 'east', 'south', 'west'] Qvalues: [6.43, 5.68, 5.43, 5.25, 5.15] Action: close window Reward: 0, Score 55, Done False

#### STATE 78

the window closes ( more easily than it opened ). you are empty handed. behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is slightly ajar. Actions: ['open window', 'north', 'south', 'east'] Qvalues: [7.54, 6.26, 5.95, 5.91] Action: north Reward: 0, Score 55, Done False

#### STATE 79

north of house you are facing the north side of a white house. there is no door here, and all the windows are boarded up. to the north a narrow path winds through the trees. you are empty handed. north of house you are facing the north side of a white house. there is no door here, and all the windows are boarded up. to the north a narrow path winds through the trees. Actions: ['east', 'north', 'west'] Qvalues: [7.13, 6.52, 5.61] Action: east Reward: 0, Score 55, Done False

#### STATE 80

behind house you are empty handed. behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is slightly ajar. Actions: ['open window', 'north', 'south', 'east'] Qvalues: [6.88, 5.47, 5.28, 5.27] Action: open window Reward: 0, Score 55, Done False

#### STATE 81

with great effort, you open the window far enough to allow entry. you are empty handed. behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is open. Actions: ['west', 'close window', 'north', 'east', 'south'] Qvalues: [7.23, 6.18, 5.72, 5.56, 5.36] Action: west Reward: 0, Score 55, Done False

#### STATE 82

kitchen there is a brown sack here. a hot pepper sandwich is here. there is a clove of garlic here. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water you are empty handed. kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. there is a brown sack here. a hot pepper sandwich is here. there is a clove of garlic here. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water Actions: ['west', 'east', 'open sack', 'open bottle', 'close window', 'take garlic', 'take food', 'take sack', 'take bottle', 'take all', 'up', 'jump'] Qvalues: [8.05, 7.66, 6.21, 5.98, 5.91, 5.52, 5.44, 5.4, 4.96, 4.93, 2.11, -6.64] Action: east Reward: 0, Score 55, Done False

#### STATE 83

behind house you are empty handed. behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is open. Actions: ['close window', 'north', 'east', 'south', 'west'] Qvalues: [6.52, 6.0, 5.7, 5.69, 5.22] Action: west Reward: 0, Score 55, Done False

#### STATE 84

kitchen there is a brown sack here. a hot pepper sandwich is here. there is a clove of garlic here. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water you are empty handed. kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. there is a brown sack here. a hot pepper sandwich is here. there is a clove of garlic here. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water Actions: ['east', 'west', 'open sack', 'open bottle', 'close window', 'take garlic', 'take food', 'take sack', 'take bottle', 'take all', 'up', 'jump'] Qvalues: [7.35, 7.25, 6.16, 6.01, 5.81, 5.52, 5.44, 5.41, 5.16, 5.06, 2.48, -6.1] Action: take food Reward: 0, Score 55, Done False

#### STATE 85

taken. you are carrying : a lunch kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. there is a brown sack here. there is a clove of garlic here. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water Actions: ['put down food', 'put food on table', 'east', 'take garlic', 'take sack', 'west', 'open bottle', 'open sack', 'take bottle', 'take all', 'close window', 'up', 'jump'] Qvalues: [5.65, 5.57, 5.53, 5.48, 5.47, 5.43, 5.25, 5.19, 5.13, 4.96, 4.56, 3.21, -4.72] Action: take garlic Reward: 0, Score 55, Done False

#### STATE 86

taken. you are carrying : a clove of garlic a lunch kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. there is a brown sack here. sitting on the kitchen table is : a glass bottle the glass bottle contains : a quantity of water Actions: ['put all on table', 'put down all', 'west', 'put food on table', 'take sack', 'put down food', 'put garlic on table', 'east', 'open bottle', 'put down garlic', 'take bottle', 'open sack', 'take all', 'close window', 'up', 'jump'] Qvalues: [5.93, 5.82, 5.62, 5.59, 5.57, 5.56, 5.51, 5.47, 5.45, 5.42, 5.32, 5.28, 4.87, 4.68, 3.83, -3.17] Action: put all on table Reward: 0, Score 55, Done False

#### STATE 87

clove of garlic : done. lunch : done. you are empty handed. kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. there is a brown sack here. sitting on the kitchen table is : a lunch a clove of garlic a glass bottle the glass bottle contains : a quantity of water Actions: ['east', 'west', 'open sack', 'open bottle', 'close window', 'take garlic', 'take food', 'take sack', 'take all', 'take bottle', 'take all from table', 'up', 'jump'] Qvalues: [6.17, 5.34, 5.27, 5.11, 4.66, 4.62, 4.55, 4.55, 4.39, 4.28, 3.72, 2.16, -6.62] Action: take sack Reward: 0, Score 55, Done False

#### STATE 88

taken. you are carrying : a brown sack kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. sitting on the kitchen table is : a lunch a clove of garlic a glass bottle the glass bottle contains : a quantity of water Actions: ['put sack on table', 'put down sack', 'west', 'take food', 'east', 'take garlic', 'open bottle', 'take bottle', 'open sack', 'take all', 'close window', 'up', 'jump'] Qvalues: [5.72, 5.61, 5.46, 5.46, 5.37, 5.31, 5.26, 5.25, 5.13, 4.8, 4.53, 3.63, -3.52] Action: take food Reward: 0, Score 55, Done False  
of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. sitting on the kitchen table is : a clove of garlic a glass bottle the glass bottle contains : a quantity of water Actions: ['put all on table', 'put down all', 'put sack on table', 'put down sack', 'west', 'put down food', 'put food on table', 'take garlic', 'east', 'open bottle', 'open sack', 'take bottle', 'take all', 'close window', 'up', 'jump'] Qvalues: [5.32, 5.29, 5.25, 5.12, 5.09, 5.06, 5.05, 4.91, 4.9, 4.79, 4.66, 4.56, 4.33, 4.07, 3.08, -4.21] Action: take bottle Reward: 0, Score 55, Done False

#### STATE 90

taken. you are carrying : a glass bottle the glass bottle contains : a quantity of water a lunch a brown sack kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. sitting on the kitchen table is : a clove of garlic Actions: ['put all on table', 'put down bottle', 'put down all', 'put bottle on table', 'east', 'put sack on table', 'west', 'put down sack', 'put down food', 'put food on table', 'open bottle', 'put water on table', 'open sack', 'take garlic', 'up', 'close window', 'jump'] Qvalues: [5.07, 5.04, 5.02, 5.0, 4.88, 4.87, 4.82, 4.74, 4.7, 4.62, 4.59, 4.55, 4.35, 4.34, 3.94, 3.75, -2.22] Action: put down bottle Reward: 0, Score 55, Done False



#### STATE 91

dropped. you are carrying : a lunch a brown sack kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. there is a glass bottle here. the glass bottle contains : a quantity of water sitting on the kitchen table is : a clove of garlic Actions: ['put all on table', 'put sack on table', 'put down sack', 'put down all', 'west', 'put down food', 'put food on table', 'east', 'take garlic', 'open bottle', 'open sack', 'take bottle', 'take all', 'close window', 'up', 'jump'] Qvalues: [5.43, 5.42, 5.32, 5.3, 5.3, 5.25, 5.17, 5.02, 4.94, 4.83, 4.66, 4.62, 4.28, 4.06, 3.09, -4.1] Action: put down sack Reward: 0, Score 55, Done False

#### STATE 92

dropped. you are carrying : a lunch kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. there is a brown sack here. there is a glass bottle here. the glass bottle contains : a quantity of water sitting on the kitchen table is : a clove of garlic Actions: ['east', 'put down food', 'west', 'put food on table', 'take sack', 'take garlic', 'open bottle', 'open sack', 'take bottle', 'take all', 'close window', 'up', 'jump'] Qvalues: [5.35, 5.25, 5.23, 5.12, 4.97, 4.97, 4.73, 4.73, 4.72, 4.69, 4.11, 3.21, -4.36] Action: east Reward: 0, Score 55, Done False

#### STATE 93

behind house you are carrying : a lunch behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is open. Actions: ['put down lunch', 'north', 'close window', 'south', 'east', 'west'] Qvalues: [5.7, 4.52, 4.49, 4.3, 4.28, 4.03] Action: close window Reward: 0, Score 55, Done False

#### STATE 94

the window closes ( more easily than it opened ). you are carrying : a lunch behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is slightly ajar. Actions: ['put down lunch', 'open window', 'south', 'east', 'north'] Qvalues: [5.45, 4.72, 4.17, 4.1, 3.96] Action: south Reward: 0, Score 55, Done False

#### STATE 95

south of house you are carrying : a lunch south of house you are facing the south side of a white house. there is no door here, and all the windows are boarded. Actions: ['put down lunch', 'east', 'south', 'west'] Qvalues: [4.75, 4.42, 4.13, 3.16] Action: east Reward: 0, Score 55, Done False

#### STATE 96

behind house you are carrying : a lunch behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is slightly ajar. Actions: ['put down lunch', 'open window', 'south', 'north', 'east'] Qvalues: [5.48, 4.63, 4.06, 4.03, 3.82] Action: open window Reward: 0, Score 55, Done False

#### STATE 97

with great effort, you open the window far enough to allow entry. you are carrying : a lunch behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is open. Actions: ['put down lunch', 'west', 'south', 'north', 'east', 'close window'] Qvalues: [5.21, 4.88, 4.3, 4.26, 4.1, 3.92] Action: west Reward: 0, Score 55, Done False

#### STATE 98

kitchen there is a brown sack here. there is a glass bottle here. the glass bottle contains : a quantity of water sitting on the kitchen table is : a clove of garlic you are carrying : a lunch kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. there is a brown sack here. there is a glass bottle here. the glass bottle contains : a quantity of water sitting on the kitchen table is :

a clove of garlic Actions: ['put down food', 'put food on table', 'west', 'take sack', 'take garlic', 'east', 'open bottle', 'open sack', 'take bottle', 'take all', 'close window', 'up', 'jump'] Qvalues: [4.8, 4.68, 4.6, 4.58, 4.46, 4.44, 4.44, 4.38, 4.36, 4.0, 3.7, 3.02, -4.39] Action: take garlic Reward: 0, Score 55, Done False

#### STATE 99

taken. you are carrying : a clove of garlic a lunch kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. there is a brown sack here. there is a glass bottle here. the glass bottle contains : a quantity of water Actions: ['put down all', 'put all on table', 'put down food', 'west', 'put food on table', 'put garlic on table', 'take sack', 'put down garlic', 'open bottle', 'east', 'open sack', 'take bottle', 'take all', 'close window', 'up', 'jump'] Qvalues: [5.33, 5.29, 5.05, 5.04, 4.98, 4.92, 4.91, 4.81, 4.79, 4.65, 4.61, 4.54, 4.26, 3.94, 3.29, -3.82] Action: put down food Reward: 0, Score 55, Done True

#### STATE 100

dropped. you are carrying : a clove of garlic kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. a hot pepper sandwich is here. there is a brown sack here. there is a glass bottle here. the glass bottle contains : a quantity of water Actions: ['west', 'put garlic on table', 'take sack', 'open bottle', 'take food', 'put down garlic', 'open sack', 'take bottle', 'east', 'take all', 'close window', 'up', 'jump'] Qvalues: [5.1, 4.79, 4.73, 4.68, 4.67, 4.65, 4.57, 4.32, 4.3, 3.95, 3.91, 2.32, -5.11] Action: reset Reward: 0, Score 0, Done False

### 2.1.1 DRRN (for comparison)

#### STATE 0

Copyright (c) 1981, 1982, 1983 Infocom, Inc. All rights reserved. ZORK is a registered trademark of Infocom, Inc. Revision 88 / Serial number 840726 West of House You are standing in an open field west of a white house, with a boarded front door. There is a small mailbox here. You are empty handed. West of House You are standing in an open field west of a white house, with a boarded front door. There is a small mailbox here. Actions: ['north', 'south', 'west', 'open mailbox'] Qvalues: [9.25, 8.75, 8.4, 8.11] Action: north Reward: 0, Score 0, Done False

#### STATE 1

north of house you are facing the north side of a white house. there is no door here, and all the windows are boarded up. to the north a narrow path winds through the trees. you are empty handed. north of house you are facing the north side of a white house. there is no door here, and all the windows are boarded up. to the north a narrow path winds through the trees. Actions: ['north', 'east', 'west'] Qvalues: [10.23, 10.22, 8.8] Action: north Reward: 0, Score 0, Done False

#### STATE 2

forest path this is a path winding through a dimly lit forest. the path heads north south here. one particularly large tree with some low branches stands at the edge of the path. you are empty handed. forest path this is a path winding through a dimly lit forest. the path heads north south here. one particularly large tree with some low branches stands at the edge of the path. Actions: ['up', 'go around forest', 'south', 'east', 'north', 'west'] Qvalues: [11.3, 9.84, 9.53, 8.64, 7.8, 5.7] Action: up Reward: 0, Score 0, Done False

#### STATE 3

up a tree you are about 10 feet above the ground nestled among some large branches. the nearest branch above you is above your reach. beside you on the branch is a small bird's nest. in the bird's nest is a large egg encrusted with precious jewels, apparently scavenged by a childless songbird. the egg is covered with fine gold inlay, and ornamented in lapis lazuli and mother of pearl. unlike most eggs, this one is hinged and closed with a delicate looking clasp. the egg appears extremely fragile. you are empty handed. up a tree you are about 10 feet above the ground nestled among some large branches. the nearest branch above you is above your reach. beside you on the branch is a small

bird's nest. in the bird's nest is a large egg encrusted with precious jewels, apparently scavenged by a childless songbird. the egg is covered with fine gold inlay, and ornamented in lapis lazuli and mother of pearl. unlike most eggs, this one is hinged and closed with a delicate looking clasp. the egg appears extremely fragile. Actions: ['take egg', 'take on egg', 'take nest', 'close nest', 'down'] Qvalues: [12.46, 10.87, 10.22, 9.65, 5.91] Action: take egg Reward: 5, Score 5, Done False

#### STATE 4

taken. you are carrying: a jewel encrusted egg you hear in the distance the chirping of a song bird. up a tree you are about 10 feet above the ground nestled among some large branches. the nearest branch above you is above your reach. beside you on the branch is a small bird's nest. you hear in the distance the chirping of a song bird. Actions: ['take on egg', 'put egg in nest', 'down', 'take nest', 'put down egg', 'close nest', 'throw egg at nest'] Qvalues: [8.24, 8.11, 7.77, 7.37, 7.34, 7.27, 6.01] Action: down Reward: 0, Score 5, Done False

#### STATE 5

forest path you are carrying: a jewel encrusted egg forest path this is a path winding through a dimly lit forest. the path heads north south here. one particularly large tree with some low branches stands at the edge of the path. you hear in the distance the chirping of a song bird. Actions: ['south', 'take on egg', 'up', 'open egg with all', 'go around forest', 'put down egg', 'east', 'north', 'throw egg at tree', 'west'] Qvalues: [9.33, 9.13, 9.02, 8.27, 8.21, 7.74, 7.41, 6.32, 4.05, 3.81] Action: south Reward: 0, Score 5, Done False

#### STATE 6

north of house you are carrying: a jewel encrusted egg north of house you are facing the north side of a white house. there is no door here, and all the windows are boarded up. to the north a narrow path winds through the trees. Actions: ['east', 'take on egg', 'put down egg', 'north', 'open egg with all', 'west', 'throw egg at path'] Qvalues: [10.13, 8.82, 7.17, 6.75, 6.43, 4.81, 3.01] Action: east Reward: 0, Score 5, Done False

#### STATE 7

behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is slightly ajar. you are carrying: a jewel encrusted egg behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is slightly ajar. Actions: ['take on egg', 'open window', 'put down egg', 'open egg with all', 'north', 'east', 'south', 'throw egg at path'] Qvalues: [11.34, 10.97, 10.23, 10.2, 8.65, 8.62, 8.47, 5.23] Action: put down egg Reward: 0, Score 5, Done False

#### STATE 8

dropped. you are empty handed. behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is slightly ajar. there is a jewel encrusted egg here. Actions: ['take egg', 'take on egg', 'open window', 'north', 'east', 'south'] Qvalues: [11.04, 10.84, 9.91, 9.62, 9.43, 9.09] Action: north Reward: 0, Score 5, Done False

#### STATE 9

north of house you are empty handed. north of house you are facing the north side of a white house. there is no door here, and all the windows are boarded up. to the north a narrow path winds through the trees. Actions: ['east', 'north', 'west'] Qvalues: [10.09, 8.65, 6.82] Action: east Reward: 0, Score 5, Done False

#### STATE 10

behind house there is a jewel encrusted egg here. you are empty handed. behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is slightly ajar. there is a jewel encrusted egg here. Actions: ['take egg', 'take on egg', 'north', 'open window', 'south', 'east'] Qvalues: [10.77, 10.26, 10.26, 10.17, 10.01, 9.07] Action: north Reward: 0, Score 5, Done False

#### STATE 11

north of house you are empty handed. north of house you are facing the north side of a white house.

there is no door here, and all the windows are boarded up. to the north a narrow path winds through the trees. Actions: ['east', 'north', 'west'] Qvalues: [10.04, 8.6, 6.73] Action: north Reward: 0, Score 5, Done False

#### STATE 12

forest path you are empty handed. forest path this is a path winding through a dimly lit forest. the path heads north south here. one particularly large tree with some low branches stands at the edge of the path. Actions: ['up', 'south', 'go around forest', 'east', 'north', 'west'] Qvalues: [9.02, 8.89, 8.28, 7.72, 7.19, 4.43] Action: south Reward: 0, Score 5, Done False

#### STATE 13

north of house you are empty handed. north of house you are facing the north side of a white house. there is no door here, and all the windows are boarded up. to the north a narrow path winds through the trees. Actions: ['east', 'north', 'west'] Qvalues: [10.03, 8.58, 6.68] Action: east Reward: 0, Score 5, Done False

#### STATE 14

behind house there is a jewel encrusted egg here. you are empty handed. behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is slightly ajar. there is a jewel encrusted egg here. Actions: ['take egg', 'north', 'take on egg', 'open window', 'south', 'east'] Qvalues: [10.64, 10.2, 10.18, 10.07, 9.98, 9.04] Action: north Reward: 0, Score 5, Done False

#### STATE 15

north of house you are empty handed. north of house you are facing the north side of a white house. there is no door here, and all the windows are boarded up. to the north a narrow path winds through the trees. Actions: ['east', 'north', 'west'] Qvalues: [9.99, 8.53, 6.58] Action: east Reward: 0, Score 5, Done False

#### STATE 16

behind house there is a jewel encrusted egg here. you are empty handed. behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is slightly ajar. there is a jewel encrusted egg here. Actions: ['take egg', 'north', 'take on egg', 'open window', 'south', 'east'] Qvalues: [10.54, 10.14, 10.09, 9.99, 9.93, 8.99] Action: open window Reward: 0, Score 5, Done False

#### STATE 17

with great effort, you open the window far enough to allow entry. you are empty handed. behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is open. there is a jewel encrusted egg here. Actions: ['take egg', 'take on egg', 'west', 'close window', 'east', 'south', 'north'] Qvalues: [11.46, 9.71, 9.65, 8.11, 6.49, 6.19, 5.6] Action: take egg Reward: 0, Score 5, Done False

#### STATE 18

taken. you are carrying: a jewel encrusted egg behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is open. Actions: ['take on egg', 'west', 'north', 'open egg with all', 'put down egg', 'close window', 'south', 'east', 'throw egg at path'] Qvalues: [10.51, 10.42, 10.08, 9.93, 9.81, 9.6, 9.4, 9.12, 6.64] Action: north Reward: 0, Score 5, Done False

#### STATE 19

north of house you are carrying: a jewel encrusted egg north of house you are facing the north side of a white house. there is no door here, and all the windows are boarded up. to the north a narrow path winds through the trees. Actions: ['east', 'take on egg', 'put down egg', 'north', 'open egg with all', 'west', 'throw egg at path'] Qvalues: [9.59, 8.34, 6.73, 6.21, 5.94, 4.12, 2.61] Action: take on egg Reward: 0, Score 5, Done False

#### STATE 20

there is a noticeable crunch from beneath you, and inspection reveals that the egg is lying open,

badly damaged. there is a golden clockwork canary nestled in the egg. it seems to have recently had a bad experience. the mountings for its jewel like eyes are empty, and its silver beak is crumpled. through a cracked crystal window below its left wing you can see the remains of intricate machinery. it is not clear what result winding it would have, as the mainspring seems sprung. you are carrying: a broken jewel encrusted egg the broken jewel encrusted egg contains: a broken clockwork canary north of house you are facing the north side of a white house. there is no door here, and all the windows are boarded up. to the north a narrow path winds through the trees. Actions: ['take canary', 'shake egg', 'close egg', 'north', 'east', 'put down canary', 'put down egg', 'west'] Qvalues: [10.64, 10.34, 10.01, 9.8, 9.8, 9.68, 9.67, 8.01] Action: north Reward: 0, Score 5, Done False

#### STATE 21

forest path you are carrying: a broken jewel encrusted egg the broken jewel encrusted egg contains: a broken clockwork canary forest path this is a path winding through a dimly lit forest. the path heads north south here. one particularly large tree with some low branches stands at the edge of the path. you hear in the distance the chirping of a song bird. Actions: ['south', 'take canary', 'up', 'shake egg', 'put down canary', 'east', 'close egg', 'go around forest', 'north', 'put down egg', 'west'] Qvalues: [11.15, 9.93, 9.35, 9.24, 8.89, 8.88, 8.79, 8.74, 8.22, 8.19, 5.5] Action: south Reward: 0, Score 5, Done False

#### STATE 22

north of house you are carrying: a broken jewel encrusted egg the broken jewel encrusted egg contains: a broken clockwork canary north of house you are facing the north side of a white house. there is no door here, and all the windows are boarded up. to the north a narrow path winds through the trees. Actions: ['east', 'shake egg', 'take canary', 'close egg', 'north', 'put down canary', 'put down egg', 'west'] Qvalues: [11.93, 10.06, 9.78, 9.49, 8.68, 8.53, 8.35, 6.3] Action: east Reward: 0, Score 5, Done False

#### STATE 23

behind house you are carrying: a broken jewel encrusted egg the broken jewel encrusted egg contains: a broken clockwork canary behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is open. Actions: ['close window', 'shake egg', 'close egg', 'take canary', 'east', 'south', 'north', 'put down egg', 'put down canary', 'west'] Qvalues: [11.21, 10.7, 10.61, 10.2, 10.12, 9.76, 9.66, 9.53, 8.86, 8.7] Action: close egg Reward: 0, Score 5, Done False

#### STATE 24

closed. you are carrying: a broken jewel encrusted egg behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is open. Actions: ['close window', 'south', 'north', 'west', 'east', 'open egg', 'put down egg'] Qvalues: [12.79, 12.65, 11.54, 11.37, 10.81, 10.31, 10.01] Action: south Reward: 0, Score 5, Done False

#### STATE 25

south of house you are facing the south side of a white house. there is no door here, and all the windows are boarded. you are carrying: a broken jewel encrusted egg south of house you are facing the south side of a white house. there is no door here, and all the windows are boarded. Actions: ['east', 'south', 'open egg', 'put down egg', 'west'] Qvalues: [14.39, 10.78, 10.45, 9.31, 8.39] Action: east Reward: 0, Score 5, Done False

#### STATE 26

behind house you are carrying: a broken jewel encrusted egg behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is open. Actions: ['close window', 'south', 'east', 'open egg', 'north', 'west', 'put down egg'] Qvalues: [13.61, 12.05, 11.88, 11.29, 11.11, 10.28, 10.27] Action: close window Reward: 0, Score 5, Done False

#### STATE 27

the window closes (more easily than it opened). you are carrying: a broken jewel encrusted egg

behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is slightly ajar. Actions: ['open window', 'north', 'east', 'south', 'open egg', 'put down egg'] Qvalues: [15.18, 12.67, 12.56, 12.56, 12.07, 11.34] Action: open window Reward: 0, Score 5, Done False

#### STATE 28

with great effort, you open the window far enough to allow entry. you are carrying: a broken jewel encrusted egg behind house you are behind the white house. a path leads into the forest to the east. in one corner of the house there is a small window which is open. Actions: ['west', 'close window', 'open egg', 'north', 'put down egg', 'east', 'south'] Qvalues: [18.49, 15.61, 14.4, 13.72, 13.06, 12.87, 12.11] Action: west Reward: 10, Score 15, Done False

#### STATE 29

kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. on the table is an elongated brown sack, smelling of hot peppers. a bottle is sitting on the table. the glass bottle contains: a quantity of water you are carrying: a broken jewel encrusted egg kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. on the table is an elongated brown sack, smelling of hot peppers. a bottle is sitting on the table. the glass bottle contains: a quantity of water Actions: ['east', 'west', 'close window', 'take bottle', 'take all', 'open bottle', 'open sack', 'take sack', 'open egg', 'up', 'put egg on table', 'put down egg', 'jump'] Qvalues: [12.6, 12.33, 12.29, 11.66, 11.3, 11.3, 11.0, 10.48, 10.26, 10.12, 9.82, 9.81, 4.29] Action: put down egg Reward: 0, Score 15, Done False

#### STATE 30

dropped. you are empty handed. kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. there is a somewhat ruined egg here. on the table is an elongated brown sack, smelling of hot peppers. a bottle is sitting on the table. the glass bottle contains: a quantity of water Actions: ['take egg', 'east', 'open sack', 'west', 'take bottle', 'take sack', 'take all from table', 'close window', 'take all', 'open bottle', 'up', 'open egg', 'jump'] Qvalues: [9.16, 9.1, 9.02, 8.95, 8.85, 8.65, 8.54, 8.49, 8.48, 8.42, 8.29, 8.02, 0.73] Action: open sack Reward: 0, Score 15, Done False

#### STATE 31

opening the brown sack reveals a lunch, and a clove of garlic. you are empty handed. kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. there is a somewhat ruined egg here. a bottle is sitting on the table. the glass bottle contains: a quantity of water a brown sack the brown sack contains: a lunch a clove of garlic Actions: ['take egg', 'take all from table', 'take all', 'take all from sack', 'west', 'take sack', 'close sack', 'take food', 'take bottle', 'take garlic', 'open egg', 'open bottle', 'close window', 'east', 'up', 'jump'] Qvalues: [9.83, 9.13, 8.97, 8.85, 8.69, 8.59, 8.55, 8.51, 8.43, 8.31, 8.09, 7.93, 7.75, 7.02, 6.99, -1.14] Action: close sack Reward: 0, Score 15, Done False

#### STATE 32

closed. you are empty handed. kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. there is a somewhat ruined egg here. a bottle is sitting on the table. the glass bottle contains: a quantity of water a brown sack Actions: ['take egg', 'take all', 'take all from table', 'take sack', 'open sack', 'take bottle', 'close window', 'open egg', 'open bottle', 'west', 'east', 'up', 'jump'] Qvalues: [11.85, 11.45, 11.15, 11.06, 10.74, 10.47, 10.35, 10.14, 10.06, 9.89, 9.32, 9.24, 2.32] Action: take bottle Reward: 0, Score 15, Done False

#### STATE 33

taken. you are carrying: a glass bottle the glass bottle contains: a quantity of water kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is open. there is a somewhat ruined egg here. sitting on the kitchen table is: a brown sack Actions: ['take egg', 'take all', 'west', 'put water on table', 'open sack', 'take sack', 'put bottle on table', 'open egg', 'open bottle', 'close window', 'up', 'put down bottle', 'east', 'jump'] Qvalues: [11.16, 10.75, 10.52, 9.92, 9.89, 9.88, 9.78, 9.66, 9.51, 9.4, 9.36, 9.12, 8.99, 1.01] Action: close window Reward: 0, Score 15, Done False

#### STATE 34

the window closes (more easily than it opened). you are carrying: a glass bottle the glass bottle contains: a quantity of water kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is slightly ajar. there is a somewhat ruined egg here. sitting on the kitchen table is: a brown sack Actions: ['take egg', 'west', 'take all', 'open egg', 'open sack', 'take sack', 'put water on table', 'put bottle on table', 'open bottle', 'open window', 'put down bottle', 'up', 'jump'] Qvalues: [10.72, 9.98, 9.86, 9.09, 9.02, 8.96, 8.92, 8.83, 8.8, 8.65, 8.29, 7.96, -1.33] Action: put water on table Reward: 0, Score 15, Done False

#### STATE 35

done. you are carrying: a glass bottle kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is slightly ajar. there is a somewhat ruined egg here. sitting on the kitchen table is: a quantity of water a brown sack Actions: ['take egg', 'take all', 'west', 'open window', 'open sack', 'take sack', 'open egg', 'open bottle', 'put bottle on table', 'put down bottle', 'up', 'jump'] Qvalues: [11.52, 10.95, 10.61, 10.33, 10.11, 10.07, 10.03, 9.92, 9.8, 9.75, 8.45, 1.04] Action: put bottle on table Reward: 0, Score 15, Done False

#### STATE 36

done. you are empty handed. kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is slightly ajar. there is a somewhat ruined egg here. sitting on the kitchen table is: a glass bottle a quantity of water a brown sack Actions: ['take egg', 'take all', 'open window', 'take all from table', 'west', 'take sack', 'take bottle', 'open sack', 'open bottle', 'open egg', 'up', 'jump'] Qvalues: [11.36, 10.61, 10.58, 10.56, 10.46, 10.29, 10.28, 10.13, 9.7, 9.65, 8.73, 1.69] Action: take sack Reward: 0, Score 15, Done False

#### STATE 37

taken. you are carrying: a brown sack kitchen you are in the kitchen of the white house. a table seems to have been used recently for the preparation of food. a passage leads to the west and a dark staircase can be seen leading upward. a dark chimney leads down and to the east is a small window which is slightly ajar. there is a somewhat ruined egg here. sitting on the kitchen table is: a glass bottle a quantity of water Actions: ['west', 'take egg', 'take all', 'put sack on table', 'open window', 'open sack', 'take bottle', 'put down sack', 'open egg', 'open bottle', 'up', 'jump'] Qvalues: [9.59, 9.28, 8.93, 8.76, 8.47, 8.47, 8.34, 8.32, 7.95, 7.83, 7.77, 0.83] Action: west Reward: 0, Score 15, Done False

#### STATE 38

living room you are in the living room. there is a doorway to the east, a wooden door with strange gothic lettering to the west, which appears to be nailed shut, a trophy case, and a large oriental rug in the center of the room. above the trophy case hangs an elvish sword of great antiquity. a battery powered brass lantern is on the trophy case. you are carrying: a brown sack living room you are in the living room. there is a doorway to the east, a wooden door with strange gothic lettering to the west, which appears to be nailed shut, a trophy case, and a large oriental rug in the center of the room. above the trophy case hangs an elvish sword of great antiquity. a battery powered brass

lantern is on the trophy case. Actions: ['take all', 'push rug', 'open sack', 'put down sack', 'open case', 'take sword', 'take lantern', 'turn on lantern', 'throw sack at lantern', 'east'] Qvalues: [10.66, 10.2, 9.58, 9.11, 9.0, 8.97, 8.77, 8.68, 8.31, 7.35] Action: push rug Reward: 0, Score 15, Done False

#### STATE 39

with a great effort, the rug is moved to one side of the room, revealing the dusty cover of a closed trap door. you are carrying: a brown sack living room you are in the living room. there is a doorway to the east, a wooden door with strange gothic lettering to the west, which appears to be nailed shut, a trophy case, and a closed trap door at your feet. above the trophy case hangs an elvish sword of great antiquity. a battery powered brass lantern is on the trophy case. Actions: ['take all', 'open trap', 'open sack', 'take sword', 'put down sack', 'take lantern', 'open case', 'turn on lantern', 'throw sack at lantern', 'east'] Qvalues: [11.53, 11.1, 10.37, 10.0, 9.76, 9.69, 9.66, 9.61, 9.1, 8.05] Action: open trap Reward: 0, Score 15, Done False

#### STATE 40

the door reluctantly opens to reveal a rickety staircase descending into darkness. you are carrying: a brown sack living room you are in the living room. there is a doorway to the east, a wooden door with strange gothic lettering to the west, which appears to be nailed shut, a trophy case, and a rug lying beside an open trap door. above the trophy case hangs an elvish sword of great antiquity. a battery powered brass lantern is on the trophy case. Actions: ['take all', 'take lantern', 'open sack', 'put down sack', 'take sword', 'open case', 'throw sack at lantern', 'turn on lantern', 'close trap', 'east', 'down'] Qvalues: [12.63, 11.7, 11.21, 10.74, 10.64, 10.54, 10.47, 10.07, 9.7, 9.09, 7.73] Action: take all Reward: 0, Score 15, Done False

#### STATE 41

trophy case: the trophy case is securely fastened to the wall. sword: taken. brass lantern: taken. carpet: the rug is extremely heavy and cannot be carried. you are carrying: a brass lantern a sword a brown sack living room you are in the living room. there is a doorway to the east, a wooden door with strange gothic lettering to the west, which appears to be nailed shut, a trophy case, and a rug lying beside an open trap door. Actions: ['open sack', 'put down all', 'down', 'open case', 'put down sack', 'throw sack at lantern', 'close trap', 'put down lantern', 'put down sword', 'turn on lantern', 'east'] Qvalues: [14.22, 14.12, 13.88, 13.79, 13.66, 13.2, 13.14, 13.11, 13.01, 12.88, 12.33] Action: put down all Reward: 0, Score 15, Done False

#### STATE 42

brass lantern: dropped. sword: dropped. brown sack: dropped. you are empty handed. living room you are in the living room. there is a doorway to the east, a wooden door with strange gothic lettering to the west, which appears to be nailed shut, a trophy case, and a rug lying beside an open trap door. there is a brown sack here. there is a sword here. there is a brass lantern (battery powered) here. Actions: ['open sack', 'take lantern', 'take sack', 'take all', 'take sword', 'turn on lantern', 'open case', 'close trap', 'down', 'east'] Qvalues: [11.7, 11.61, 11.57, 11.39, 11.37, 11.37, 10.79, 10.57, 10.13, 10.1] Action: down Reward: 25, Score 40, Done False

#### STATE 43

you have moved into a dark place. the trap door crashes shut, and you hear someone barring it. it is pitch black. you are likely to be eaten by a grue. you are empty handed. it is pitch black. you are likely to be eaten by a grue. Actions: ['south', 'north'] Qvalues: [-7.44, -9.98] Action: south Reward: 0, Score 40, Done False

#### STATE 44

you have moved into a dark place. it is pitch black. you are likely to be eaten by a grue. you are empty handed. it is pitch black. you are likely to be eaten by a grue. Actions: ['east', 'north', 'west'] Qvalues: [1.4, -3.4, -8.58] Action: east Reward: 0, Score 40, Done False

#### STATE 45

gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. fortunately, there is still one chance for you to be a vandal, for on the far wall is a painting of unparalleled beauty. you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional



taste. the vandals left through either the north or west exits. fortunately, there is still one chance for you to be a vandal, for on the far wall is a painting of unparalleled beauty. Actions: ['take art', 'north', 'west'] Qvalues: [6.02, 1.29, 0.19] Action: take art Reward: 4, Score 44, Done False

#### STATE 46

taken. you are carrying: a painting gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['north', 'put down art', 'west'] Qvalues: [2.41, 2.35, 2.15] Action: put down art Reward: 0, Score 44, Done False

#### STATE 47

dropped. you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. a painting by a neglected genius is here. Actions: ['take art', 'west', 'north'] Qvalues: [2.91, 1.66, 1.11] Action: take art Reward: 0, Score 44, Done False

#### STATE 48

taken. you are carrying: a painting gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['north', 'put down art', 'west'] Qvalues: [2.38, 2.36, 2.16] Action: put down art Reward: 0, Score 44, Done False

#### STATE 49

dropped. you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. a painting by a neglected genius is here. Actions: ['take art', 'west', 'north'] Qvalues: [2.8, 1.52, 0.96] Action: take art Reward: 0, Score 44, Done False

#### STATE 50

taken. you are carrying: a painting gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['put down art', 'north', 'west'] Qvalues: [2.34, 2.29, 2.1] Action: north Reward: 0, Score 44, Done False

#### STATE 51

you have moved into a dark place. it is pitch black. you are likely to be eaten by a grue. you are carrying: a painting it is pitch black. you are likely to be eaten by a grue. Actions: ['south', 'put down painting', 'north'] Qvalues: [1.71, -2.26, -3.91] Action: south Reward: 0, Score 44, Done False

#### STATE 52

gallery you are carrying: a painting gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['north', 'put down art', 'west'] Qvalues: [2.0, 1.94, 1.62] Action: put down art Reward: 0, Score 44, Done False

#### STATE 53

dropped. you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. a painting by a neglected genius is here. Actions: ['take art', 'west', 'north'] Qvalues: [2.44, 1.08, 0.47] Action: take art Reward: 0, Score 44, Done False

#### STATE 54

taken. you are carrying: a painting gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['put down art', 'north', 'west'] Qvalues: [2.23, 1.96, 1.84] Action: put down art Reward: 0, Score 44, Done False

#### STATE 55

dropped. you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. a painting by a neglected genius is here. Actions: ['take art', 'west', 'north'] Qvalues: [2.1, 0.73, 0.08] Action: west Reward: 0, Score 44, Done False

#### STATE 56

you have moved into a dark place. it is pitch black. you are likely to be eaten by a grue. you are empty handed. it is pitch black. you are likely to be eaten by a grue. Actions: ['east', 'north', 'west'] Qvalues: [0.75, -4.31, -9.21] Action: east Reward: 0, Score 44, Done False

#### STATE 57

gallery a painting by a neglected genius is here. you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. a painting by a neglected genius is here. Actions: ['take art', 'west', 'north'] Qvalues: [1.99, 0.53, -0.2] Action: take art Reward: 0, Score 44, Done False

#### STATE 58

taken. you are carrying: a painting gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['put down art', 'north', 'west'] Qvalues: [1.93, 1.43, 1.35] Action: put down art Reward: 0, Score 44, Done False

#### STATE 59

dropped. you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. a painting by a neglected genius is here. Actions: ['take art', 'wait', 'west', 'north'] Qvalues: [1.48, 0.25, 0.06, -0.58] Action: wait Reward: 0, Score 44, Done False

#### STATE 60

time passes... you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['north', 'west'] Qvalues: [1.24, 0.15] Action: west Reward: 0, Score 44, Done False

#### STATE 61

you have moved into a dark place. it is pitch black. you are likely to be eaten by a grue. you are empty handed. it is pitch black. you are likely to be eaten by a grue. Actions: ['east', 'north', 'west'] Qvalues: [0.87, -4.34, -9.29] Action: east Reward: 0, Score 44, Done False

#### STATE 62

gallery you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['west', 'north'] Qvalues: [0.38, 0.23] Action: west Reward: 0, Score 44, Done False

#### STATE 63

you have moved into a dark place. it is pitch black. you are likely to be eaten by a grue. you are empty handed. it is pitch black. you are likely to be eaten by a grue. Actions: ['east', 'north', 'west'] Qvalues: [0.92, -4.3, -9.3] Action: east Reward: 0, Score 44, Done False

#### STATE 64

gallery you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['west', 'north'] Qvalues: [0.29, 0.16] Action: north Reward: 0, Score 44, Done False

#### STATE 65

you have moved into a dark place. it is pitch black. you are likely to be eaten by a grue. you are empty handed. it is pitch black. you are likely to be eaten by a grue. Actions: ['south', 'north'] Qvalues: [0.59, -4.18] Action: south Reward: 0, Score 44, Done False

#### STATE 66

gallery you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['west', 'north'] Qvalues: [0.29, 0.17] Action: west Reward: 0, Score 44, Done False

#### STATE 67

you have moved into a dark place. it is pitch black. you are likely to be eaten by a grue. you are empty handed. it is pitch black. you are likely to be eaten by a grue. Actions: ['east', 'north', 'west'] Qvalues: [1.21, -4.03, -9.06] Action: east Reward: 0, Score 44, Done False

#### STATE 68

gallery you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['west', 'north'] Qvalues: [0.38, 0.25] Action: west Reward: 0, Score 44, Done False

#### STATE 69

you have moved into a dark place. it is pitch black. you are likely to be eaten by a grue. you are empty handed. it is pitch black. you are likely to be eaten by a grue. Actions: ['east', 'north', 'west'] Qvalues: [1.27, -3.95, -8.96] Action: east Reward: 0, Score 44, Done False

#### STATE 70

gallery you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['west', 'north'] Qvalues: [0.46, 0.31] Action: north Reward: 0, Score 44, Done False

#### STATE 71

you have moved into a dark place. it is pitch black. you are likely to be eaten by a grue. you are empty handed. it is pitch black. you are likely to be eaten by a grue. Actions: ['south', 'north'] Qvalues: [0.78, -3.93] Action: south Reward: 0, Score 44, Done False

#### STATE 72

gallery you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['west', 'north'] Qvalues: [0.62, 0.45] Action: west Reward: 0, Score 44, Done False

#### STATE 73

you have moved into a dark place. it is pitch black. you are likely to be eaten by a grue. you are empty handed. it is pitch black. you are likely to be eaten by a grue. Actions: ['east', 'north', 'west'] Qvalues: [1.32, -3.86, -8.82] Action: east Reward: 0, Score 44, Done False

#### STATE 74

gallery you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['west', 'north', 'wait'] Qvalues: [0.75, 0.57, 0.39] Action: north Reward: 0, Score 44, Done False

#### STATE 75

you have moved into a dark place. it is pitch black. you are likely to be eaten by a grue. you are empty handed. it is pitch black. you are likely to be eaten by a grue. Actions: ['south', 'north'] Qvalues: [0.87, -3.84] Action: south Reward: 0, Score 44, Done False

#### STATE 76

gallery you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['west', 'north'] Qvalues: [0.93, 0.75] Action: north Reward: 0, Score 44, Done False

#### STATE 77

you have moved into a dark place. it is pitch black. you are likely to be eaten by a grue. you are empty handed. it is pitch black. you are likely to be eaten by a grue. Actions: ['south', 'north'] Qvalues: [0.99, -3.68] Action: south Reward: 0, Score 44, Done False

#### STATE 78

gallery you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['west', 'north'] Qvalues: [1.14, 0.97] Action: west Reward: 0, Score 44, Done False

#### STATE 79

you have moved into a dark place. it is pitch black. you are likely to be eaten by a grue. you are empty handed. it is pitch black. you are likely to be eaten by a grue. Actions: ['east', 'north', 'west'] Qvalues: [1.51, -3.52, -8.51] Action: east Reward: 0, Score 44, Done False

#### STATE 80

gallery you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['west', 'north'] Qvalues: [1.33, 1.18] Action: west Reward: 0, Score 44, Done False

#### STATE 81

you have moved into a dark place. it is pitch black. you are likely to be eaten by a grue. you are empty handed. it is pitch black. you are likely to be eaten by a grue. Actions: ['east', 'north', 'west'] Qvalues: [1.66, -3.32, -8.33] Action: east Reward: 0, Score 44, Done False

#### STATE 82

gallery you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['west', 'north'] Qvalues: [1.55, 1.4] Action: north Reward: 0, Score 44, Done False

#### STATE 83

you have moved into a dark place. it is pitch black. you are likely to be eaten by a grue. you are empty handed. it is pitch black. you are likely to be eaten by a grue. Actions: ['south', 'north'] Qvalues: [1.41, -3.15] Action: south Reward: 0, Score 44, Done False

#### STATE 84

gallery you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['west', 'north'] Qvalues: [1.65, 1.51] Action: west Reward: 0, Score 44, Done False

#### STATE 85

you have moved into a dark place. it is pitch black. you are likely to be eaten by a grue. you are empty handed. it is pitch black. you are likely to be eaten by a grue. Actions: ['east', 'north', 'west'] Qvalues: [1.81, -3.09, -8.17] Action: east Reward: 0, Score 44, Done False

#### STATE 86

gallery you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['west', 'north'] Qvalues: [1.66, 1.56] Action: west Reward: 0, Score 44, Done False

#### STATE 87

you have moved into a dark place. it is pitch black. you are likely to be eaten by a grue. you are empty handed. it is pitch black. you are likely to be eaten by a grue. Actions: ['east', 'north', 'west'] Qvalues: [1.79, -3.06, -8.2] Action: east Reward: 0, Score 44, Done False

#### STATE 88

gallery you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['west', 'north'] Qvalues: [1.6, 1.53] Action: north Reward: 0, Score 44, Done False

#### STATE 89

you have moved into a dark place. it is pitch black. you are likely to be eaten by a grue. you are empty handed. it is pitch black. you are likely to be eaten by a grue. Actions: ['south', 'north'] Qvalues: [1.48, -3.07] Action: south Reward: 0, Score 44, Done False

#### STATE 90

gallery you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['west', 'north'] Qvalues: [1.53, 1.5] Action: north Reward: 0, Score 44, Done False

#### STATE 91

you have moved into a dark place. it is pitch black. you are likely to be eaten by a grue. you are empty handed. it is pitch black. you are likely to be eaten by a grue. Actions: ['south', 'north'] Qvalues: [1.46, -3.08] Action: south Reward: 0, Score 44, Done False

#### STATE 92

gallery you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['west', 'north'] Qvalues: [1.45, 1.42] Action: west Reward: 0, Score 44, Done False

#### STATE 93

you have moved into a dark place. it is pitch black. you are likely to be eaten by a grue. you are empty handed. it is pitch black. you are likely to be eaten by a grue. Actions: ['east', 'north', 'west'] Qvalues: [1.46, -3.16, -8.41] Action: east Reward: 0, Score 44, Done False

#### STATE 94

gallery you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['west', 'north'] Qvalues: [1.38, 1.33] Action: north Reward: 0, Score 44, Done False

#### STATE 95

you have moved into a dark place. it is pitch black. you are likely to be eaten by a grue. you are empty handed. it is pitch black. you are likely to be eaten by a grue. Actions: ['south', 'north'] Qvalues: [1.27, -3.26] Action: south Reward: 0, Score 44, Done False

#### STATE 96

gallery you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['west', 'north'] Qvalues: [1.29, 1.22] Action: west Reward: 0, Score 44, Done False

#### STATE 97

you have moved into a dark place. it is pitch black. you are likely to be eaten by a grue. you are empty handed. it is pitch black. you are likely to be eaten by a grue. Actions: ['east', 'north', 'west'] Qvalues: [1.18, -3.36, -8.54] Action: east Reward: 0, Score 44, Done False

#### STATE 98

gallery you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['west', 'north'] Qvalues: [1.25, 1.13] Action: north Reward: 0, Score 44, Done False

#### STATE 99

you have moved into a dark place. it is pitch black. you are likely to be eaten by a grue. you are empty handed. it is pitch black. you are likely to be eaten by a grue. Actions: ['south', 'north'] Qvalues: [0.99, -3.47] Action: south Reward: 0, Score 44, Done True

#### STATE 100

gallery you are empty handed. gallery this is an art gallery. most of the paintings have been stolen by vandals with exceptional taste. the vandals left through either the north or west exits. Actions: ['west', 'north'] Qvalues: [1.21, 1.04] Action: reset Reward13458: 0, Score 0, Done False

## 2.2 Inhumane

### STATE 0

You awaken in your tent, lying on the floor, with a hangover like you wouldn't believe. As you lever yourself up, you notice that there is complete silence instead of the usual morning complaints of the workers and Roboff's usual shouting. This can only mean one thing Roboff must have finally run off on you. Panicked, you look around and see your amulet lying on the floor. At least Roboff had the sense to not trigger off your alarm. Knowing him, he also had the sense to take the emergency radio. How the megakrip are you going to get out of this one? INHUMANE : An Infralogic Massacre. Copyright ( C ) by Infobom Inhumane and Infobom are trademarks of Sadistic Software, Ins. Revision 2 / Serial Number 31415926 / Inform v1405 Library 5 / 8 First time players should type " about ". In Your Tent You are in your tent in the encampment. The tent appears to have been completely cleaned out. It is very hot in here and getting hotter. The tent flap to the south is open. On the ground is the ancient jeweled amulet that you " borrowed " from Mr. Meshugge. You are holding nothing. In Your Tent You are in your tent in the encampment. The tent appears to have been completely cleaned out. It is very hot in here and getting hotter. The tent flap to the south is open. On the ground is the ancient jeweled amulet that you " borrowed " from Mr. Meshugge. Actions: ['south', 'take amulet'] Qvalues: [6.04, 4.66] Action: south Reward: 0, Score 0, Done False

### STATE 1

center of camp this is the center of your camp. the entire place seems to be completely deserted. you can see roboff's tent to the south and the storage tent west. east is open desert. you are holding nothing. center of camp this is the center of your camp. the entire place seems to be completely deserted. you can see roboff's tent to the south and the storage tent west. east is open desert. Actions: ['east', 'north', 'south', 'west'] Qvalues: [7.01, 5.93, 5.76, 5.3] Action: south Reward: 0, Score 0, Done False

### STATE 2

roboff's tent you are in francisco roboff's tent. the place is bare except for the emergency signal radio and roboff's toilet in one corner. there is a note taped to the tent wall. you are holding nothing. roboff's tent you are in francisco roboff's tent. the place is bare except for the emergency signal radio and roboff's toilet in one corner. there is a note taped to the tent wall. Actions: ['north', 'take signal off radio'] Qvalues: [6.3, 4.72] Action: north Reward: 0, Score 0, Done False

### STATE 3

center of camp you are holding nothing. center of camp this is the center of your camp. the entire place seems to be completely deserted. you can see roboff's tent to the south and the storage tent west. east is open desert. Actions: ['east', 'north', 'south', 'west'] Qvalues: [7.15, 5.82, 5.72, 5.61] Action: north Reward: 0, Score 0, Done False

### STATE 4

in your tent on the ground is the ancient jeweled amulet that you " borrowed " from mr. meshugge. you are holding nothing. in your tent you are in your tent in the encampment. the tent appears to have been completely cleaned out. it is very hot in here and getting hotter. the tent flap to the south is open. on the ground is the ancient jeweled amulet that you " borrowed " from mr. meshugge. Actions: ['south', 'take amulet'] Qvalues: [6.36, 5.16] Action: south Reward: 0, Score 0, Done False

### STATE 5

center of camp you are holding nothing. center of camp this is the center of your camp. the entire place seems to be completely deserted. you can see roboff's tent to the south and the storage tent west. east is open desert. Actions: ['east', 'north', 'west', 'south'] Qvalues: [7.14, 5.84, 5.66, 5.66] Action: east Reward: 0, Score 0, Done False

### STATE 6

you venture out onto the sands and rapidly lose sight of camp. in the desert all you can see in any direction is sand and sunlight. you are sweating like a pig. you are holding nothing. in the desert all you can see in any direction is sand and sunlight. you are sweating like a pig. Actions: ['put all down', 'north', 'west'] Qvalues: [7.71, 7.29, 6.3] Action: put all down Reward: 0, Score 0, Done False

#### STATE 7

it falls and is lost forever in the sands. it is very dark. before you can do anything, something begins gnawing on you. you have died you are floating disembodied in absolute blackness. time passes at a strange, relative rate. after an infinite / infinitesimal time, you sense a presence near you. a voice speaks, resounding in your head as in a hollow gourd... " ah! another of those wimpy delvers come to steal my treasure. how boring. most of it was taken by that other guy who had the sense to avoid the nastier traps... but i am getting pretty tired of guarding what's left. i don't suppose that you have any chance of thinking your way through my traps, of course. but i'll let you try, and i won't even vaporize you when you try to leave. in fact, i'll make you a deal. if you prove to me that you are an incompetent harry sullivan by getting yourself killed by every single one of my deathtraps, after getting as far towards solving it as possible, then i'll give up and let you take the coffin. " that sound good? i thought so. " that hardly counts as being killed by a trap, you know. even you could have gotten farther into that situation. " you don't seem to have really gotten fooled by any traps yet. maybe there is hope for you. " round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. you are holding : a torch round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. Actions: ['push button', 'north', 'east', 'west', 'south', 'take button off torch', 'take shovel', 'put torch down', 'examine obelisk', 'up'] Qvalues: [8.67, 8.06, 8.02, 7.76, 7.63, 7.4, 6.97, 6.88, 6.55, 5.09] Action: north Reward: 0, Score 0, Done False

#### STATE 8

darkness it is very dark. before you can do anything, something begins gnawing on you. you have died you are back in the infinite blackness. eventually the voice returns, senses you disgustedly, and speaks. " that hardly counts as being killed by a trap, you know. even you could have gotten farther into that situation. " you don't seem to have really gotten fooled by any traps yet. maybe there is hope for you. " round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. you are holding : a torch round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. Actions: ['push button', 'east', 'north', 'west', 'south', 'take button off torch', 'take shovel', 'put torch down', 'examine obelisk', 'up'] Qvalues: [8.76, 8.1, 7.99, 7.62, 7.55, 7.38, 6.93, 6.9, 6.49, 5.19] Action: take button off torch Reward: 0, Score 0, Done False

#### STATE 9

removed. you are holding : a torch button a torch round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. Actions: ['push button', 'north', 'west', 'east', 'south', 'take shovel', 'put all down', 'put torch down', 'put button down', 'examine obelisk', 'up'] Qvalues: [8.26, 8.02, 7.8, 7.78, 7.59, 6.96, 6.76, 6.72, 6.71, 6.49, 5.56] Action: push button Reward: 0, Score 0, Done False

#### STATE 10

the torch flickers a few times and then glows steadily. you are holding : a torch button a torch ( providing light ) round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. Actions: ['east', 'push button', 'north', 'south', 'take shovel', 'put button down', 'examine obelisk', 'west', 'put torch down', 'put all down', 'up'] Qvalues: [9.97, 8.69, 8.26, 8.14, 7.65, 7.56, 7.41, 7.09, 6.9, 6.68, 5.32] Action: south Reward: 0, Score 0, Done False

#### STATE 11

corridor at alcoves the corridor goes north to the stairs and south from here. there are alcoves to the

east and west. in the floor between the alcoves is a quartz window. you are holding : a torch button a torch ( providing light ) corridor at alcoves the corridor goes north to the stairs and south from here. there are alcoves to the east and west. in the floor between the alcoves is a quartz window. Actions: ['south', 'west', 'push button', 'north', 'put button down', 'put all down', 'put torch down', 'east'] Qvalues: [8.79, 8.53, 8.07, 7.82, 7.62, 7.56, 7.45, 7.41] Action: south Reward: 0, Score 0, Done False

#### STATE 12

outside door you are at the end of the hall. to the south is a wooden door with a steel knob on it. the door is closed. you are holding : a torch button a torch ( providing light ) outside door you are at the end of the hall. to the south is a wooden door with a steel knob on it. the door is closed. Actions: ['open door', 'push button', 'take brass off door', 'put button down', 'north', 'put torch down', 'put all down'] Qvalues: [9.73, 8.84, 8.64, 8.39, 8.32, 8.16, 8.05] Action: push button Reward: 0, Score 0, Done False

#### STATE 13

the torch flickers a few times and then glows steadily. you are holding : a torch button a torch ( providing light ) outside door you are at the end of the hall. to the south is a wooden door with a steel knob on it. the door is closed. Actions: ['open door', 'push button', 'take brass off door', 'put button down', 'north', 'put all down', 'put torch down'] Qvalues: [9.83, 8.92, 8.7, 8.67, 8.23, 8.15, 8.09] Action: push button Reward: 0, Score 0, Done False

#### STATE 14

the torch flickers a few times and then glows steadily. you are holding : a torch button a torch ( providing light ) outside door you are at the end of the hall. to the south is a wooden door with a steel knob on it. the door is closed. Actions: ['open door', 'push button', 'put button down', 'take brass off door', 'north', 'put all down', 'put torch down'] Qvalues: [9.93, 9.04, 8.76, 8.76, 8.28, 8.19, 8.13] Action: open door Reward: 0, Score 0, Done False

#### STATE 15

the door slams open. it is apparently on a very strong spring. if you were on the other side, you would have been slammed into the wall. as it is, the steel door knob slams into the inside wall. you are holding : a torch button a torch ( providing light ) outside door you are at the end of the hall. to the south is a wooden door with a steel knob on it. the door is open. Actions: ['south', 'push button', 'take brass off door', 'put button down', 'close door', 'put all down', 'north', 'put torch down'] Qvalues: [10.85, 9.79, 9.52, 9.4, 9.14, 8.61, 8.56, 8.52] Action: south Reward: 0, Score 0, Done False

#### STATE 16

room with chest this room is empty except for a small chest at one end. the only exit is the door to the north. the door is open. you see something glimmering behind the door. you'll have to close the door to get it. the chest is closed and locked. you are holding : a torch button a torch ( providing light ) room with chest this room is empty except for a small chest at one end. the only exit is the door to the north. the door is open. you see something glimmering behind the door. you'll have to close the door to get it. the chest is closed and locked. Actions: ['close door', 'push button', 'take brass off door', 'put torch down', 'north', 'put all down', 'put button down'] Qvalues: [12.47, 11.55, 11.36, 10.31, 10.26, 10.19, 10.05] Action: close door Reward: 0, Score 0, Done False

#### STATE 17

after much tugging, you manage to get the door shut. behind it is a brass needle that you might use to unlock the chest. you are holding : a torch button a torch ( providing light ) room with chest this room is empty except for a small chest at one end. the only exit is the door to the north. the door is closed. on the ground is a long brass needle. the chest is closed and locked. Actions: ['open chest with needle', 'take brass', 'push button', 'put all down', 'put torch down', 'put button down'] Qvalues: [13.9, 12.14, 12.14, 11.0, 10.83, 10.5] Action: open chest with needle Reward: 0, Score 0, Done False

#### STATE 18

( first taking the brass needle ) there is a click and the chest lid pops open. inside is a priceless



dorkmid! as you stare at it, you notice the smell of coal gas leaking out. you are holding : a brass needle a torch button a torch ( providing light ) room with chest this room is empty except for a small chest at one end. the only exit is the door to the north. the door is closed. the chest is open. the chest contains : a priceless dorkmid Actions: ['open door', 'put needle down', 'put needle in chest', 'push button', 'put button in chest', 'put torch in chest', 'put all in chest', 'put all down', 'put torch down', 'put button down', 'take dorkmid'] Qvalues: [15.18, 14.95, 14.61, 13.77, 13.53, 13.52, 13.44, 12.72, 12.46, 12.15, 11.09] Action: open door Reward: 10, Score 10, Done False

#### STATE 19

the door slams open. you barely avoid the swinging knob. instead, the steel knob hits the wall with a bang. the wall seems to be made of flint. you have died you are back in the infinite blackness. eventually the voice returns, senses you disgustedly, and speaks. " sparks in a room full of natural gas is not really a smart thing to do. " you've only gotten killed by one trap. not bad. " round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. you are holding : a torch button a torch ( providing light ) round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. Actions: ['east', 'north', 'push button', 'south', 'take shovel', 'west', 'examine obelisk', 'put button down', 'put torch down', 'put all down', 'up'] Qvalues: [11.75, 8.96, 8.88, 8.11, 7.56, 7.54, 7.53, 7.32, 6.79, 6.74, 6.41] Action: south Reward: 0, Score 10, Done False

#### STATE 20

corridor at alcoves you are holding : a torch button a torch ( providing light ) corridor at alcoves the corridor goes north to the stairs and south from here. there are alcoves to the east and west. in the floor between the alcoves is a quartz window. Actions: ['south', 'west', 'push button', 'put button down', 'north', 'put all down', 'east', 'put torch down'] Qvalues: [8.68, 8.19, 7.98, 7.51, 7.43, 7.36, 7.34, 7.22] Action: put button down Reward: 0, Score 10, Done False

#### STATE 21

dropped. you are holding : a torch ( providing light ) corridor at alcoves the corridor goes north to the stairs and south from here. there are alcoves to the east and west. in the floor between the alcoves is a quartz window. you can see a torch button here. Actions: ['south', 'take button', 'west', 'push button', 'put torch down', 'north', 'east'] Qvalues: [7.64, 7.58, 7.48, 7.33, 6.72, 6.63, 6.35] Action: west Reward: 0, Score 10, Done False

#### STATE 22

west alcove this alcove has a stone platform set in the floor. the platform shifts a little but does not move when you step on it. sticking out of the platform is an iron crank. you are holding : a torch ( providing light ) west alcove this alcove has a stone platform set in the floor. the platform shifts a little but does not move when you step on it. sticking out of the platform is an iron crank. Actions: ['turn crank', 'east', 'put torch down'] Qvalues: [8.75, 7.73, 6.44] Action: east Reward: 0, Score 10, Done False

#### STATE 23

corridor at alcoves you can see a torch button here. you are holding : a torch ( providing light ) corridor at alcoves the corridor goes north to the stairs and south from here. there are alcoves to the east and west. in the floor between the alcoves is a quartz window. you can see a torch button here. Actions: ['south', 'take button', 'west', 'push button', 'put torch down', 'north', 'east'] Qvalues: [7.75, 7.69, 7.48, 7.46, 6.76, 6.7, 6.62] Action: take button Reward: 0, Score 10, Done False

#### STATE 24

taken. you are holding : a torch button a torch ( providing light ) corridor at alcoves the corridor goes north to the stairs and south from here. there are alcoves to the east and west. in the floor between the alcoves is a quartz window. Actions: ['south', 'west', 'push button', 'put button down', 'put all down', 'put torch down', 'north', 'east'] Qvalues: [8.53, 7.97, 7.74, 7.28, 7.28, 7.24, 7.09, 6.74] Action: west Reward: 0, Score 10, Done False

#### STATE 25

west alcove you are holding : a torch button a torch ( providing light ) west alcove this alcove has a stone platform set in the floor. the platform shifts a little but does not move when you step on it. sticking out of the platform is an iron crank. Actions: ['turn crank', 'push button', 'east', 'put button down', 'put torch down', 'put all down'] Qvalues: [9.2, 7.92, 7.65, 7.19, 6.75, 6.7] Action: turn crank Reward: 0, Score 10, Done False

#### STATE 26

the platform slowly moves down a shaft below it. in the other alcove the other platform slowly moves up, counterbalancing the one you are on. on platform you are on the crank platform at the bottom of the shaft under the alcove. there is an opening to the east. you are holding : a torch button a torch ( providing light ) on platform you are on the crank platform at the bottom of the shaft under the alcove. there is an opening to the east. Actions: ['push button', 'turn crank', 'put button down', 'put torch down', 'put all down', 'east'] Qvalues: [10.23, 10.22, 9.02, 8.93, 8.7, 8.63] Action: push button Reward: 0, Score 10, Done False

#### STATE 27

the torch flickers a few times and then glows steadily. you are holding : a torch button a torch ( providing light ) on platform you are on the crank platform at the bottom of the shaft under the alcove. there is an opening to the east. Actions: ['turn crank', 'push button', 'put button down', 'east', 'put torch down', 'put all down'] Qvalues: [11.21, 10.29, 9.09, 9.06, 8.8, 8.62] Action: put all down Reward: 0, Score 10, Done False

#### STATE 28

torch button : dropped. torch : dropped. you are holding nothing. on platform you are on the crank platform at the bottom of the shaft under the alcove. there is an opening to the east. lying on the ground is a brass torch of the " self igniting " type. the ignite button is on the handle. you can also see a torch button here. Actions: ['take all', 'take torch', 'take button', 'push button', 'turn crank', 'east'] Qvalues: [9.66, 8.96, 8.88, 8.8, 8.21, 7.81] Action: take all Reward: 0, Score 10, Done False

#### STATE 29

iron crank : a wimp like you will never get that done. torch : taken. torch button : taken. you are holding : a torch button a torch ( providing light ) on platform you are on the crank platform at the bottom of the shaft under the alcove. there is an opening to the east. Actions: ['turn crank', 'push button', 'put button down', 'put torch down', 'put all down', 'east'] Qvalues: [11.85, 10.14, 8.88, 8.85, 8.72, 8.24] Action: east Reward: 0, Score 10, Done False

#### STATE 30

in tiny room this is a tiny room. the only exit is back west. you can see the quartz window directly above your head. there is a huge diamond lying on the ground! you are holding : a torch button a torch ( providing light ) in tiny room this is a tiny room. the only exit is back west. you can see the quartz window directly above your head. there is a huge diamond lying on the ground! Actions: ['west', 'take diamond', 'push button', 'put torch down', 'put button down', 'put all down'] Qvalues: [10.17, 9.35, 8.97, 8.14, 8.13, 8.12] Action: west Reward: 0, Score 10, Done False

#### STATE 31

on platform you are holding : a torch button a torch ( providing light ) on platform you are on the crank platform at the bottom of the shaft under the alcove. there is an opening to the east. Actions: ['turn crank', 'push button', 'put button down', 'put torch down', 'put all down', 'east'] Qvalues: [11.12, 10.08, 8.86, 8.74, 8.66, 7.84] Action: turn crank Reward: 10, Score 20, Done False

#### STATE 32

the platform moves back up to the alcove level. in the other alcove, you see the other platform moving back down until both of the platforms are even. west alcove this alcove has a stone platform set in the floor. the platform shifts a little but does not move when you step on it. sticking out of the platform is an iron crank. as the other platform moves down from the hole in the ceiling, you see a small robot standing on it. when it gets down to the floor, it looks at you, says " ex trrr mnnn ate ", points an arm at you, and turns you into a small pile of monatomic dust. you have died you are back in the infinite blackness. eventually the voice returns, senses you disgustedly, and speaks. "

giving nasties a free ride down to where you are seems a little stupid. " you've been killed by two traps. that isn't really so bad. " round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. you are holding : a torch button a torch ( providing light ) round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. Actions: ['push button', 'north', 'south', 'take shovel', 'examine obelisk', 'put button down', 'west', 'put torch down', 'put all down', 'east', 'up'] Qvalues: [8.24, 7.81, 7.57, 7.32, 7.08, 6.95, 6.66, 6.58, 6.47, 6.31, 5.27] Action: west Reward: 0, Score 20, Done False

#### STATE 33

t intersection the east / west corridor branches to the south here. you are holding : a torch button a torch ( providing light ) t intersection the east / west corridor branches to the south here. Actions: ['east', 'push button', 'west', 'put torch down', 'put all down', 'put button down', 'south'] Qvalues: [7.36, 6.89, 6.85, 6.17, 6.08, 6.05, 5.85] Action: east Reward: 0, Score 20, Done False

#### STATE 34

round room there is a shovel lying here. you are holding : a torch button a torch ( providing light ) round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. Actions: ['push button', 'north', 'south', 'take shovel', 'examine obelisk', 'east', 'put button down', 'west', 'put torch down', 'put all down', 'up'] Qvalues: [8.32, 7.79, 7.61, 7.21, 7.12, 6.97, 6.93, 6.61, 6.56, 6.4, 5.75] Action: put button down Reward: 0, Score 20, Done False

#### STATE 35

dropped. you are holding : a torch ( providing light ) round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. you can also see a torch button here. Actions: ['take button', 'north', 'push button', 'take all', 'take shovel', 'east', 'south', 'west', 'examine obelisk', 'put torch down', 'up'] Qvalues: [7.53, 7.32, 7.3, 7.18, 7.07, 7.0, 6.82, 6.78, 6.67, 6.18, 5.21] Action: north Reward: 0, Score 20, Done False

#### STATE 36

landing this is a landing on the stairway. you can go down to the north or up to the south. a passage leads east. you are holding : a torch ( providing light ) landing this is a landing on the stairway. you can go down to the north or up to the south. a passage leads east. Actions: ['north', 'south', 'east', 'put torch down'] Qvalues: [8.16, 6.7, 6.56, 6.28] Action: east Reward: 0, Score 20, Done False

#### STATE 37

t intersection the hallway goes east and west here with a branch north. you are holding : a torch ( providing light ) t intersection the hallway goes east and west here with a branch north. Actions: ['west', 'north', 'put torch down', 'east'] Qvalues: [7.2, 6.93, 6.24, 6.01] Action: put torch down Reward: 0, Score 20, Done False

#### STATE 38

dropped. you are holding nothing. t intersection the hallway goes east and west here with a branch north. lying on the ground is a brass torch of the " self igniting " type. the ignite button is on the handle. Actions: ['west', 'north', 'east', 'take torch'] Qvalues: [6.88, 6.7, 6.47, 6.28] Action: east Reward: 0, Score 20, Done False

#### STATE 39

darkness it is very dark. before you can do anything, something begins gnawing on you. you have died you are back in the infinite blackness. eventually the voice returns, senses you disgustedly, and speaks. " that hardly counts as being killed by a trap, you know. even you could have gotten farther into that situation. " you've been killed by two traps. that isn't really so bad. " round room

this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. you can also see a torch button here. you are holding : a torch ( providing light ) round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. you can also see a torch button here. Actions: ['take button', 'north', 'push button', 'take all', 'take shovel', 'south', 'west', 'examine obelisk', 'put torch down', 'east', 'up'] Qvalues: [7.77, 7.65, 7.54, 7.45, 7.14, 7.03, 6.69, 6.66, 6.31, 6.06, 5.33] Action: north Reward: 0, Score 20, Done False

#### STATE 40

landing you are holding : a torch ( providing light ) landing this is a landing on the stairway. you can go down to the north or up to the south. a passage leads east. Actions: ['north', 'south', 'east', 'put torch down'] Qvalues: [8.24, 6.67, 6.57, 6.31] Action: north Reward: 0, Score 20, Done False

#### STATE 41

bottom of shaft you are at the bottom of a ladder that goes up a shaft from here. to the south is the stairway up. on the floor is a small coin bag made of leather. it appears to have something in it. you are holding : a torch ( providing light ) bottom of shaft you are at the bottom of a ladder that goes up a shaft from here. to the south is the stairway up. on the floor is a small coin bag made of leather. it appears to have something in it. Actions: ['up', 'take coin-bag', 'south', 'put torch down'] Qvalues: [9.37, 8.64, 7.42, 7.26] Action: take coin-bag Reward: 0, Score 20, Done False

#### STATE 42

taken. you are holding : a small leather coin bag a torch ( providing light ) bottom of shaft you are at the bottom of a ladder that goes up a shaft from here. to the south is the stairway up. Actions: ['up', 'put coin-bag down', 'south', 'put torch down', 'put all down'] Qvalues: [9.71, 8.47, 7.53, 7.14, 7.05] Action: up Reward: 0, Score 20, Done False

#### STATE 43

you climb up the ladder to a hole at the top of the shaft. exercise wheel room this room is laid out like an exercise wheel for rats except that it is 40 ft. across. you can turn the wheel by walking north or south. equally spaced around the rim are twelve coin holders. some have gold coins in them. the coin holder at your feet has a coin in it. the hole is at the bottom of the wheel. below it is the shaft that you entered this room by. you are holding : a small leather coin bag a torch ( providing light ) exercise wheel room this room is laid out like an exercise wheel for rats except that it is 40 ft. across. you can turn the wheel by walking north or south. equally spaced around the rim are twelve coin holders. some have gold coins in them. the coin holder at your feet has a coin in it. the hole is at the bottom of the wheel. below it is the shaft that you entered this room by. Actions: ['south', 'put coin-bag down', 'put torch down', 'put all down', 'down', 'north'] Qvalues: [10.62, 8.9, 8.48, 8.29, 8.23, 8.13] Action: south Reward: 0, Score 20, Done False

#### STATE 44

the wheel rotates under your feet. you stay at the bottom, but the hole in the rim that you entered by has moved. the coin holder at your feet has a coin in it. the hole is slightly up the north side. you are holding : a small leather coin bag a torch ( providing light ) exercise wheel room this room is laid out like an exercise wheel for rats except that it is 40 ft. across. you can turn the wheel by walking north or south. equally spaced around the rim are twelve coin holders. some have gold coins in them. the coin holder at your feet has a coin in it. the hole is slightly up the north side. Actions: ['south', 'put coin-bag down', 'north', 'put torch down', 'put all down'] Qvalues: [11.58, 9.76, 9.28, 9.2, 9.07] Action: put torch down Reward: 0, Score 20, Done False

#### STATE 45

dropped. you are holding : a small leather coin bag exercise wheel room this room is laid out like an exercise wheel for rats except that it is 40 ft. across. you can turn the wheel by walking north or south. equally spaced around the rim are twelve coin holders. some have gold coins in them. the coin holder at your feet has a coin in it. the hole is slightly up the north side. lying on the ground is a brass torch of the " self igniting " type. the ignite button is on the handle. Actions: ['take brass',

'south', 'put coin-bag down', 'north'] Qvalues: [10.36, 10.14, 9.24, 7.98] Action: north Reward: 0, Score 20, Done False

#### STATE 46

the wheel rotates under your feet. you stay at the bottom, but the hole in the rim that you entered by has moved. the coin holder at your feet has a coin in it. the hole is at the bottom of the wheel. below it is the shaft that you entered this room by. you are holding : a small leather coin bag exercise wheel room this room is laid out like an exercise wheel for rats except that it is 40 ft. across. you can turn the wheel by walking north or south. equally spaced around the rim are twelve coin holders. some have gold coins in them. the coin holder at your feet has a coin in it. the hole is at the bottom of the wheel. below it is the shaft that you entered this room by. lying on the ground is a brass torch of the " self igniting " type. the ignite button is on the handle. Actions: ['south', 'take torch', 'put coin-bag down', 'down', 'north'] Qvalues: [8.84, 8.82, 8.14, 7.12, 7.07] Action: put coin-bag down Reward: 0, Score 20, Done False

#### STATE 47

dropped. you are holding nothing. exercise wheel room this room is laid out like an exercise wheel for rats except that it is 40 ft. across. you can turn the wheel by walking north or south. equally spaced around the rim are twelve coin holders. some have gold coins in them. the coin holder at your feet has a coin in it. the hole is at the bottom of the wheel. below it is the shaft that you entered this room by. on the floor is a small coin bag made of leather. it appears to have something in it. lying on the ground is a brass torch of the " self igniting " type. the ignite button is on the handle. Actions: ['take all', 'south', 'take torch', 'take coin-bag', 'take in floor', 'north'] Qvalues: [9.69, 9.44, 9.1, 8.53, 8.18, 7.63] Action: take all Reward: 0, Score 20, Done False

#### STATE 48

small leather coin bag : taken. torch : taken. coin holder : you pick up the coin and put it in your bag. you are holding : a torch ( providing light ) a small leather coin bag exercise wheel room this room is laid out like an exercise wheel for rats except that it is 40 ft. across. you can turn the wheel by walking north or south. equally spaced around the rim are twelve coin holders. some have gold coins in them. the coin holder at your feet is empty. the hole is at the bottom of the wheel. below it is the shaft that you entered this room by. Actions: ['south', 'put coin-bag down', 'put torch down', 'put all down', 'north', 'down'] Qvalues: [9.59, 8.74, 8.14, 8.11, 7.7, 7.53] Action: north Reward: 0, Score 20, Done False

#### STATE 49

the wheel rotates under your feet. you stay at the bottom, but the hole in the rim that you entered by has moved. the coin holder at your feet has a coin in it. the hole is slightly up the south side. you are holding : a torch ( providing light ) a small leather coin bag exercise wheel room this room is laid out like an exercise wheel for rats except that it is 40 ft. across. you can turn the wheel by walking north or south. equally spaced around the rim are twelve coin holders. some have gold coins in them. the coin holder at your feet has a coin in it. the hole is slightly up the south side. Actions: ['south', 'put coin-bag down', 'put all down', 'put torch down', 'north'] Qvalues: [8.63, 8.06, 7.47, 7.36, 7.29] Action: put coin-bag down Reward: 0, Score 20, Done False

#### STATE 50

dropped. you are holding : a torch ( providing light ) exercise wheel room this room is laid out like an exercise wheel for rats except that it is 40 ft. across. you can turn the wheel by walking north or south. equally spaced around the rim are twelve coin holders. some have gold coins in them. the coin holder at your feet has a coin in it. the hole is slightly up the south side. on the floor is a small coin bag made of leather. it appears to have something in it. Actions: ['south', 'take coin-bag', 'north', 'put torch down'] Qvalues: [9.01, 8.69, 8.03, 7.6] Action: south Reward: 0, Score 20, Done False

#### STATE 51

the wheel rotates under your feet. you stay at the bottom, but the hole in the rim that you entered by has moved. the coin holder at your feet is empty. the hole is at the bottom of the wheel. below it is the shaft that you entered this room by. you are holding : a torch ( providing light ) exercise wheel room this room is laid out like an exercise wheel for rats except that it is 40 ft. across. you can

turn the wheel by walking north or south. equally spaced around the rim are twelve coin holders. some have gold coins in them. the coin holder at your feet is empty. the hole is at the bottom of the wheel. below it is the shaft that you entered this room by. on the floor is a small coin bag made of leather. it appears to have something in it. Actions: ['south', 'take coin-bag', 'put torch down', 'north', 'take in floor'] Qvalues: [10.48, 10.08, 8.75, 8.58, 8.15] Action: put torch down Reward: 0, Score 20, Done False

#### STATE 52

dropped. you are holding nothing. exercise wheel room this room is laid out like an exercise wheel for rats except that it is 40 ft. across. you can turn the wheel by walking north or south. equally spaced around the rim are twelve coin holders. some have gold coins in them. the coin holder at your feet is empty. the hole is at the bottom of the wheel. below it is the shaft that you entered this room by. lying on the ground is a brass torch of the "self igniting" type. the ignite button is on the handle. on the floor is a small coin bag made of leather. it appears to have something in it. Actions: ['take all', 'south', 'take torch', 'take coin-bag', 'take in floor', 'north'] Qvalues: [10.04, 9.65, 9.47, 8.81, 8.42, 8.17] Action: take torch Reward: 0, Score 20, Done False

#### STATE 53

taken. you are holding : a torch ( providing light ) exercise wheel room this room is laid out like an exercise wheel for rats except that it is 40 ft. across. you can turn the wheel by walking north or south. equally spaced around the rim are twelve coin holders. some have gold coins in them. the coin holder at your feet is empty. the hole is at the bottom of the wheel. below it is the shaft that you entered this room by. on the floor is a small coin bag made of leather. it appears to have something in it. Actions: ['south', 'take coin-bag', 'put torch down', 'north', 'take in floor'] Qvalues: [10.47, 9.96, 8.81, 8.62, 8.6] Action: south Reward: 0, Score 20, Done False

#### STATE 54

the wheel rotates under your feet. you stay at the bottom, but the hole in the rim that you entered by has moved. the coin holder at your feet has a coin in it. the hole is slightly up the north side. you are holding : a torch ( providing light ) exercise wheel room this room is laid out like an exercise wheel for rats except that it is 40 ft. across. you can turn the wheel by walking north or south. equally spaced around the rim are twelve coin holders. some have gold coins in them. the coin holder at your feet has a coin in it. the hole is slightly up the north side. on the floor is a small coin bag made of leather. it appears to have something in it. Actions: ['south', 'take coin-bag', 'put torch down', 'north'] Qvalues: [11.74, 11.16, 9.81, 9.42] Action: take coin-bag Reward: 0, Score 20, Done False

#### STATE 55

taken. you are holding : a small leather coin bag a torch ( providing light ) exercise wheel room this room is laid out like an exercise wheel for rats except that it is 40 ft. across. you can turn the wheel by walking north or south. equally spaced around the rim are twelve coin holders. some have gold coins in them. the coin holder at your feet has a coin in it. the hole is slightly up the north side. Actions: ['south', 'put coin-bag down', 'north', 'put torch down', 'put all down'] Qvalues: [12.41, 10.59, 10.06, 9.98, 9.9] Action: south Reward: 0, Score 20, Done False

#### STATE 56

the wheel rotates under your feet. you stay at the bottom, but the hole in the rim that you entered by has moved. the coin holder at your feet has a coin in it. the hole is less than half way up the north side. you are holding : a small leather coin bag a torch ( providing light ) exercise wheel room this room is laid out like an exercise wheel for rats except that it is 40 ft. across. you can turn the wheel by walking north or south. equally spaced around the rim are twelve coin holders. some have gold coins in them. the coin holder at your feet has a coin in it. the hole is less than half way up the north side. Actions: ['south', 'put coin-bag down', 'put torch down', 'north', 'put all down'] Qvalues: [13.58, 11.65, 10.99, 10.91, 10.85] Action: put all down Reward: 0, Score 20, Done False

#### STATE 57

small leather coin bag : dropped. torch : dropped. you are holding nothing. exercise wheel room this room is laid out like an exercise wheel for rats except that it is 40 ft. across. you can turn the wheel by walking north or south. equally spaced around the rim are twelve coin holders. some have gold coins in them. the coin holder at your feet has a coin in it. the hole is less than half way up

the north side. lying on the ground is a brass torch of the " self igniting " type. the ignite button is on the handle. on the floor is a small coin bag made of leather. it appears to have something in it. Actions: ['take all', 'south', 'take torch', 'take coin-bag', 'north'] Qvalues: [12.65, 12.31, 12.0, 11.39, 9.82] Action: south Reward: 0, Score 20, Done False

#### STATE 58

the wheel rotates under your feet. you stay at the bottom, but the hole in the rim that you entered by has moved. the coin holder at your feet has a coin in it. the hole is half way up the north side. you are holding nothing. exercise wheel room this room is laid out like an exercise wheel for rats except that it is 40 ft. across. you can turn the wheel by walking north or south. equally spaced around the rim are twelve coin holders. some have gold coins in them. the coin holder at your feet has a coin in it. the hole is half way up the north side. lying on the ground is a brass torch of the " self igniting " type. the ignite button is on the handle. on the floor is a small coin bag made of leather. it appears to have something in it. Actions: ['take all', 'south', 'take torch', 'take coin-bag', 'north'] Qvalues: [14.04, 13.49, 13.35, 12.75, 10.79] Action: take torch Reward: 0, Score 20, Done False

#### STATE 59

taken. you are holding : a torch ( providing light ) exercise wheel room this room is laid out like an exercise wheel for rats except that it is 40 ft. across. you can turn the wheel by walking north or south. equally spaced around the rim are twelve coin holders. some have gold coins in them. the coin holder at your feet has a coin in it. the hole is half way up the north side. on the floor is a small coin bag made of leather. it appears to have something in it. Actions: ['south', 'take coin-bag', 'put torch down', 'north'] Qvalues: [14.71, 14.12, 12.3, 11.95] Action: south Reward: 0, Score 20, Done False

#### STATE 60

the wheel rotates under your feet. you stay at the bottom, but the hole in the rim that you entered by has moved. the coin holder at your feet has a coin in it. the hole is more than half way up the north side. you are holding : a torch ( providing light ) exercise wheel room this room is laid out like an exercise wheel for rats except that it is 40 ft. across. you can turn the wheel by walking north or south. equally spaced around the rim are twelve coin holders. some have gold coins in them. the coin holder at your feet has a coin in it. the hole is more than half way up the north side. on the floor is a small coin bag made of leather. it appears to have something in it. Actions: ['south', 'take coin-bag', 'put torch down', 'north'] Qvalues: [15.89, 15.25, 13.22, 13.01] Action: south Reward: 10, Score 30, Done False

#### STATE 61

the wheel rotates under your feet. you stay at the bottom, but the hole in the rim that you entered by has moved. the coin holder at your feet has a coin in it. the hole is almost to the top on the north side. behind it is a hole from which water is pouring very fast. the water turns the wheel back to its original position, then pours down the hole. you are taken with it. you have died you are back in the infinite blackness. eventually the voice returns, senses you disgustedly, and speaks. " don't you know how lab rats eventually end up? " three deathtraps have zocked you so far. you're beginning to seem rather dumb. " round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. you can also see a torch button here. you are holding : a torch ( providing light ) round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. you can also see a torch button here. Actions: ['take button', 'north', 'push button', 'take all', 'south', 'take shovel', 'west', 'examine obelisk', 'put torch down', 'east', 'up'] Qvalues: [8.61, 8.49, 8.34, 8.29, 7.95, 7.88, 7.43, 7.37, 7.15, 7.11, 5.9] Action: put torch down Reward: 0, Score 30, Done False

#### STATE 62

dropped. you are holding nothing. round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. lying on the ground is a brass torch of the " self igniting " type. the ignite button is on the handle. there is a shovel

lying here. you can also see a torch button here. Actions: ['west', 'north', 'take all', 'push button', 'south', 'east', 'take button', 'take torch', 'take shovel', 'examine obelisk', 'up'] Qvalues: [7.85, 7.68, 7.68, 7.68, 7.66, 7.62, 7.51, 7.44, 7.13, 6.9, 6.1] Action: south Reward: 0, Score 30, Done False

#### STATE 63

darkness it is very dark. before you can do anything, something begins gnawing on you. you have died you are back in the infinite blackness. eventually the voice returns, senses you disgustedly, and speaks. " that hardly counts as being killed by a trap, you know. even you could have gotten farther into that situation. " three deathtraps have zocked you so far. you're beginning to seem rather dumb. " round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. you can also see a torch button here. you are holding : a torch ( providing light ) round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. you can also see a torch button here. Actions: ['take button', 'north', 'push button', 'take all', 'south', 'take shovel', 'west', 'examine obelisk', 'put torch down', 'east', 'up'] Qvalues: [8.62, 8.38, 8.34, 8.28, 7.94, 7.89, 7.54, 7.35, 7.17, 6.62, 5.78] Action: take all Reward: 0, Score 30, Done False

#### STATE 64

torch button : taken. shovel : taken. stone obelisk : a wimp like you will never get that done. you are holding : a shovel a torch button a torch ( providing light ) round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. Actions: ['push button', 'north', 'south', 'put shovel down', 'east', 'put button down', 'examine obelisk', 'put torch down', 'west', 'put all down', 'up'] Qvalues: [8.96, 8.86, 8.77, 8.23, 8.21, 7.93, 7.84, 7.54, 7.53, 7.5, 5.75] Action: push button Reward: 0, Score 30, Done False

#### STATE 65

the torch flickers a few times and then glows steadily. you are holding : a shovel a torch button a torch ( providing light ) round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. Actions: ['east', 'push button', 'north', 'south', 'put shovel down', 'put button down', 'examine obelisk', 'west', 'put torch down', 'put all down', 'up'] Qvalues: [10.04, 9.23, 9.06, 9.0, 8.39, 8.16, 8.09, 7.59, 7.55, 7.38, 6.29] Action: east Reward: 0, Score 30, Done False

#### STATE 66

t intersection to the hall goes east from here. to the west is the stairway to the round room. a narrow passage leads south. you are holding : a shovel a torch button a torch ( providing light ) t intersection to the hall goes east from here. to the west is the stairway to the round room. a narrow passage leads south. Actions: ['east', 'west', 'push button', 'south', 'put shovel down', 'put torch down', 'put button down', 'put all down'] Qvalues: [13.19, 8.57, 8.34, 7.48, 7.11, 6.89, 6.88, 6.69] Action: east Reward: 0, Score 30, Done False

#### STATE 67

corridor at doorway the hall goes east and west from here and there is a doorway to the north. you are holding : a shovel a torch button a torch ( providing light ) corridor at doorway the hall goes east and west from here and there is a doorway to the north. Actions: ['north', 'east', 'west', 'push button', 'put shovel down', 'put torch down', 'put button down', 'put all down'] Qvalues: [15.16, 11.38, 8.99, 8.52, 7.44, 7.26, 7.01, 6.99] Action: north Reward: 0, Score 30, Done False

#### STATE 68

room full of gadgets this is the south end of a long room. the walls and floor and ceiling are covered with thousands of metal gadgets that you might want to examine more carefully. there is a path free of gadgets to the north end of the room. you are holding : a shovel a torch button a torch ( providing light ) room full of gadgets this is the south end of a long room. the walls and floor and ceiling are covered with thousands of metal gadgets that you might want to examine more carefully. there is



a path free of gadgets to the north end of the room. Actions: ['north', 'push button', 'south', 'put shovel down', 'put torch down', 'put button down', 'put all down'] Qvalues: [16.71, 10.81, 9.31, 9.13, 8.81, 8.61, 8.58] Action: north Reward: 0, Score 30, Done False

#### STATE 69

north gadget room the room stretches away back south. the metal gadgets are clustered even more densely here. sitting on the floor in a clear space is a cut crystal bowl. the bowl contains : a large perfect ruby a hundreds of quartz chips you are holding : a shovel a torch button a torch ( providing light ) north gadget room the room stretches away back south. the metal gadgets are clustered even more densely here. sitting on the floor in a clear space is a cut crystal bowl. the bowl contains : a large perfect ruby a hundreds of quartz chips Actions: ['take chips', 'push button', 'put torch down', 'put all down', 'put shovel down', 'put button down', 'south'] Qvalues: [13.84, 9.5, 8.06, 7.99, 7.98, 7.77, 7.26] Action: take chips Reward: 10, Score 40, Done False

#### STATE 70

as you do, several of the quartz chips spill onto the floor. some hit metal gadgets, triggering them. darts fly. some darts hit more gadgets. more darts fly. after a few seconds of this, you have been punctured several million times. you have died you are back in the infinite blackness. eventually the voice returns, senses you disgustedly, and speaks. " when standing inside a mass of uranium, it is not usually a good idea to drop a neutron. " you've stumbled into four traps. you're not looking very good. " round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. you are holding : a torch button a torch ( providing light ) round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. Actions: ['push button', 'south', 'north', 'take shovel', 'examine obelisk', 'put button down', 'put torch down', 'west', 'put all down', 'east', 'up'] Qvalues: [9.13, 8.58, 8.54, 8.07, 7.74, 7.73, 7.45, 7.42, 7.36, 6.8, 5.76] Action: push button Reward: 0, Score 40, Done False

#### STATE 71

the torch flickers a few times and then glows steadily. you are holding : a torch button a torch ( providing light ) round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. Actions: ['east', 'push button', 'north', 'south', 'take shovel', 'put button down', 'examine obelisk', 'west', 'put torch down', 'put all down', 'up'] Qvalues: [10.62, 9.35, 8.78, 8.78, 8.0, 7.93, 7.87, 7.55, 7.35, 7.17, 6.39] Action: push button Reward: 0, Score 40, Done False

#### STATE 72

the torch flickers a few times and then glows steadily. you are holding : a torch button a torch ( providing light ) round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. Actions: ['east', 'push button', 'south', 'north', 'put button down', 'take shovel', 'examine obelisk', 'west', 'put torch down', 'put all down', 'up'] Qvalues: [10.63, 9.25, 8.68, 8.54, 7.96, 7.96, 7.71, 7.57, 7.32, 7.15, 6.03] Action: east Reward: 0, Score 40, Done False

#### STATE 73

t intersection you are holding : a torch button a torch ( providing light ) t intersection to the hall goes east from here. to the west is the stairway to the round room. a narrow passage leads south. Actions: ['west', 'push button', 'south', 'put torch down', 'put all down', 'put button down', 'east'] Qvalues: [8.01, 7.65, 7.22, 7.01, 6.94, 6.93, 6.46] Action: east Reward: 0, Score 40, Done False

#### STATE 74

corridor at doorway you are holding : a torch button a torch ( providing light ) corridor at doorway the hall goes east and west from here and there is a doorway to the north. Actions: ['west', 'push button', 'north', 'put torch down', 'put all down', 'put button down', 'east'] Qvalues: [7.61, 7.48, 7.24, 6.89, 6.78, 6.58, 5.01] Action: west Reward: 0, Score 40, Done False

#### STATE 75

t intersection you are holding : a torch button a torch ( providing light ) t intersection to the hall goes east from here. to the west is the stairway to the round room. a narrow passage leads south. Actions: ['west', 'push button', 'south', 'put torch down', 'put all down', 'put button down', 'east'] Qvalues: [7.94, 7.53, 7.02, 6.93, 6.89, 6.83, 6.15] Action: push button Reward: 0, Score 40, Done False

#### STATE 76

the torch flickers a few times and then glows steadily. you are holding : a torch button a torch ( providing light ) t intersection to the hall goes east from here. to the west is the stairway to the round room. a narrow passage leads south. Actions: ['west', 'push button', 'east', 'south', 'put button down', 'put torch down', 'put all down'] Qvalues: [8.16, 7.75, 7.7, 7.34, 7.01, 6.85, 6.73] Action: west Reward: 0, Score 40, Done False

#### STATE 77

round room there is a shovel lying here. you are holding : a torch button a torch ( providing light ) round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. Actions: ['push button', 'south', 'north', 'east', 'put button down', 'take shovel', 'examine obelisk', 'put torch down', 'west', 'put all down', 'up'] Qvalues: [9.42, 8.58, 8.33, 7.99, 7.82, 7.74, 7.61, 7.2, 7.18, 7.05, 5.89] Action: west Reward: 0, Score 40, Done False

#### STATE 78

t intersection you are holding : a torch button a torch ( providing light ) t intersection the east / west corridor branches to the south here. Actions: ['east', 'push button', 'west', 'put torch down', 'put all down', 'put button down', 'south'] Qvalues: [7.66, 7.53, 7.46, 6.63, 6.6, 6.53, 6.31] Action: put all down Reward: 0, Score 40, Done False

#### STATE 79

torch button : dropped. torch : dropped. you are holding nothing. t intersection the east / west corridor branches to the south here. lying on the ground is a brass torch of the " self igniting " type. the ignite button is on the handle. you can also see a torch button here. Actions: ['west', 'east', 'push button', 'south', 'take all', 'take button', 'take torch'] Qvalues: [7.47, 7.33, 7.29, 7.08, 7.01, 6.79, 6.66] Action: take all Reward: 0, Score 40, Done False

#### STATE 80

torch : taken. torch button : taken. you are holding : a torch button a torch ( providing light ) t intersection the east / west corridor branches to the south here. Actions: ['east', 'west', 'push button', 'put all down', 'put torch down', 'put button down', 'south'] Qvalues: [8.2, 7.56, 7.44, 6.46, 6.42, 6.34, 6.2] Action: east Reward: 0, Score 40, Done False

#### STATE 81

round room there is a shovel lying here. you are holding : a torch button a torch ( providing light ) round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. Actions: ['push button', 'south', 'north', 'east', 'put button down', 'take shovel', 'examine obelisk', 'put torch down', 'west', 'put all down', 'up'] Qvalues: [9.17, 8.31, 8.05, 8.02, 7.6, 7.51, 7.33, 6.95, 6.94, 6.82, 5.48] Action: push button Reward: 0, Score 40, Done False

#### STATE 82

the torch flickers a few times and then glows steadily. you are holding : a torch button a torch ( providing light ) round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. Actions: ['east', 'push button', 'south', 'north', 'put button down', 'take shovel', 'examine obelisk', 'west', 'put torch down', 'put all down', 'up'] Qvalues: [10.47, 9.04, 8.33, 8.11, 7.78, 7.62, 7.35, 7.27,

7.01, 6.81, 5.67] Action: east Reward: 0, Score 40, Done False

#### STATE 83

t intersection you are holding : a torch button a torch ( providing light ) t intersection to the hall goes east from here. to the west is the stairway to the round room. a narrow passage leads south. Actions: ['west', 'push button', 'south', 'put torch down', 'put all down', 'put button down', 'east'] Qvalues: [7.63, 7.29, 6.78, 6.6, 6.56, 6.53, 6.3] Action: push button Reward: 0, Score 40, Done False

#### STATE 84

the torch flickers a few times and then glows steadily. you are holding : a torch button a torch ( providing light ) t intersection to the hall goes east from here. to the west is the stairway to the round room. a narrow passage leads south. Actions: ['west', 'push button', 'east', 'south', 'put button down', 'put torch down', 'put all down'] Qvalues: [7.92, 7.45, 7.27, 7.0, 6.68, 6.57, 6.44] Action: push button Reward: 0, Score 40, Done False

#### STATE 85

the torch flickers a few times and then glows steadily. you are holding : a torch button a torch ( providing light ) t intersection to the hall goes east from here. to the west is the stairway to the round room. a narrow passage leads south. Actions: ['west', 'push button', 'east', 'south', 'put button down', 'put torch down', 'put all down'] Qvalues: [7.89, 7.4, 7.27, 6.96, 6.64, 6.55, 6.41] Action: put all down Reward: 0, Score 40, Done False

#### STATE 86

torch button : dropped. torch : dropped. you are holding nothing. t intersection to the hall goes east from here. to the west is the stairway to the round room. a narrow passage leads south. lying on the ground is a brass torch of the " self igniting " type. the ignite button is on the handle. you can also see a torch button here. Actions: ['east', 'west', 'push button', 'take all', 'south', 'take button', 'take torch'] Qvalues: [7.4, 7.13, 7.1, 7.08, 7.05, 6.86, 6.75] Action: take all Reward: 0, Score 40, Done False

#### STATE 87

torch : taken. torch button : taken. you are holding : a torch button a torch ( providing light ) t intersection to the hall goes east from here. to the west is the stairway to the round room. a narrow passage leads south. Actions: ['west', 'push button', 'south', 'east', 'put button down', 'put torch down', 'put all down'] Qvalues: [7.89, 7.18, 6.81, 6.68, 6.31, 6.29, 6.27] Action: west Reward: 0, Score 40, Done False

#### STATE 88

round room there is a shovel lying here. you are holding : a torch button a torch ( providing light ) round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. Actions: ['push button', 'south', 'north', 'east', 'take shovel', 'put button down', 'examine obelisk', 'west', 'put torch down', 'put all down', 'up'] Qvalues: [8.74, 7.99, 7.93, 7.42, 7.38, 7.27, 7.14, 6.84, 6.76, 6.65, 5.54] Action: push button Reward: 0, Score 40, Done False

#### STATE 89

the torch flickers a few times and then glows steadily. you are holding : a torch button a torch ( providing light ) round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. Actions: ['east', 'push button', 'south', 'north', 'take shovel', 'put button down', 'examine obelisk', 'west', 'put torch down', 'put all down', 'up'] Qvalues: [10.16, 8.88, 8.24, 8.2, 7.52, 7.49, 7.35, 7.07, 6.85, 6.63, 5.99] Action: north Reward: 0, Score 40, Done False

#### STATE 90

landing you are holding : a torch button a torch ( providing light ) landing this is a landing on the stairway. you can go down to the north or up to the south. a passage leads east. Actions: ['north', 'push button', 'south', 'put button down', 'put torch down', 'east', 'put all down'] Qvalues: [8.7,

8.17, 7.45, 7.15, 6.9, 6.81, 6.81] Action: put all down Reward: 0, Score 40, Done False

#### STATE 91

torch button : dropped. torch : dropped. you are holding nothing. landing this is a landing on the stairway. you can go down to the north or up to the south. a passage leads east. lying on the ground is a brass torch of the " self igniting " type. the ignite button is on the handle. you can also see a torch button here. Actions: ['take all', 'take torch', 'north', 'take button', 'east', 'push button', 'south'] Qvalues: [7.96, 7.45, 7.44, 7.34, 7.3, 7.3, 7.09] Action: north Reward: 0, Score 40, Done False

#### STATE 92

darkness it is very dark. before you can do anything, something begins gnawing on you. you have died you are back in the infinite blackness. eventually the voice returns, senses you disgustedly, and speaks. " that hardly counts as being killed by a trap, you know. even you could have gotten farther into that situation. " you've stumbled into four traps. you're not looking very good. " round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. you are holding : a torch ( providing light ) round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. there is a shovel lying here. Actions: ['south', 'north', 'take shovel', 'examine obelisk', 'put torch down', 'west', 'east', 'up'] Qvalues: [7.93, 7.62, 7.36, 7.07, 6.82, 6.67, 6.48, 4.8] Action: put torch down Reward: 0, Score 40, Done False

#### STATE 93

dropped. you are holding nothing. round room this room is at the peak of the pyramid. it is perfectly conical. in the center is a tall stone obelisk that you could probably use to get back up to the fake toilet. there are four stairways leaving the room at the four compass points. lying on the ground is a brass torch of the " self igniting " type. the ignite button is on the handle. there is a shovel lying here. Actions: ['west', 'south', 'east', 'take all', 'north', 'take brass', 'take shovel', 'examine obelisk', 'up'] Qvalues: [7.63, 7.56, 7.54, 7.46, 7.46, 7.34, 6.94, 6.73, 6.22] Action: examine obelisk Reward: 0, Score 40, Done False

#### STATE 94

the obelisk is a monument to the great rahn. the inscription starts : " for rahn hath given us the postulates and the theorems ; we shalt thank rahn. for rahn hath said'between any two points there shalt be but one line'; and he found it good. for rahn hath said'if two planes intersecteth, they shalt form but one straight line'; and he found it good. for rahn hath said... " it goes on like this for a long time. when you manage to break the trance, your mind is numbed and full of rahn's strange commandments. round room this room is a conic surface with exits at even multiples of 90 degrees. in the center is a regular square pyramid with a narrow vertex angle. lying on the ground is a brass torch of the " self igniting " type. the ignite button is on the handle. there is a shovel lying here. you are holding nothing. round room this room is a conic surface with exits at even multiples of 90 degrees. in the center is a regular square pyramid with a narrow vertex angle. lying on the ground is a brass torch of the " self igniting " type. the ignite button is on the handle. there is a shovel lying here. Actions: ['south', 'take all', 'east', 'west', 'take brass', 'north', 'take shovel', 'examine obelisk', 'up'] Qvalues: [7.34, 7.27, 7.13, 7.1, 7.08, 7.05, 6.59, 6.37, 5.73] Action: south Reward: 0, Score 40, Done False

#### STATE 95

darkness it is very dark. before you can do anything, something begins gnawing on you. you have died you are back in the infinite blackness. eventually the voice returns, senses you disgustedly, and speaks. " that hardly counts as being killed by a trap, you know. even you could have gotten farther into that situation. " you've stumbled into four traps. you're not looking very good. " round room this room is a conic surface with exits at even multiples of 90 degrees. in the center is a regular square pyramid with a narrow vertex angle. there is a shovel lying here. you are holding : a torch ( providing light ) round room this room is a conic surface with exits at even multiples of 90 degrees. in the center is a regular square pyramid with a narrow vertex angle. there is a shovel lying here. Actions: ['south', 'north', 'take shovel', 'examine obelisk', 'put torch down', 'west', 'east', 'up']

Qvalues: [8.0, 7.7, 7.34, 7.26, 6.71, 6.65, 6.15, 4.76] Action: examine obelisk Reward: 0, Score 40, Done False

#### STATE 97

the obelisk is a monument to the great rahn. the inscription starts : " for rahn hath given us the postulates and the theorems ; we shalt thank rahn. for rahn hath said'between any two points there shalt be but one line'; and he found it good. for rahn hath said'if two planes intersecteth, they shalt form but one straight line'; and he found it good. for rahn hath said... " it goes on like this for a long time. when you manage to break the trance, your mind is numbed and full of rahn's strange commandments. round room this room is a conic surface with exits at even multiples of 90 degrees. in the center is a regular square pyramid with a narrow vertex angle. there is a shovel lying here. you are holding : a torch ( providing light ) round room this room is a conic surface with exits at even multiples of 90 degrees. in the center is a regular square pyramid with a narrow vertex angle. there is a shovel lying here. Actions: ['south', 'north', 'take shovel', 'examine obelisk', 'put torch down', 'west', 'east', 'up'] Qvalues: [7.91, 7.7, 7.27, 7.16, 6.6, 6.57, 6.45, 5.07] Action: put torch down Reward: 0, Score 40, Done False

#### STATE 98

dropped. you are holding nothing. round room this room is a conic surface with exits at even multiples of 90 degrees. in the center is a regular square pyramid with a narrow vertex angle. lying on the ground is a brass torch of the " self igniting " type. the ignite button is on the handle. there is a shovel lying here. Actions: ['take all', 'south', 'west', 'take brass', 'east', 'north', 'take shovel', 'examine obelisk', 'up'] Qvalues: [7.4, 7.34, 7.26, 7.24, 7.21, 7.19, 6.74, 6.51, 6.06] Action: south Reward: 0, Score 40, Done False

#### STATE 99

darkness it is very dark. before you can do anything, something begins gnawing on you. you have died you are back in the infinite blackness. eventually the voice returns, senses you disgustedly, and speaks. " that hardly counts as being killed by a trap, you know. even you could have gotten farther into that situation. " you've stumbled into four traps. you're not looking very good. " round room this room is a conic surface with exits at even multiples of 90 degrees. in the center is a regular square pyramid with a narrow vertex angle. there is a shovel lying here. you are holding : a torch ( providing light ) round room this room is a conic surface with exits at even multiples of 90 degrees. in the center is a regular square pyramid with a narrow vertex angle. there is a shovel lying here. Actions: ['south', 'north', 'take shovel', 'examine obelisk', 'put torch down', 'west', 'east', 'up'] Qvalues: [8.02, 7.67, 7.34, 7.23, 6.75, 6.66, 6.23, 4.74] Action: west Reward: 0, Score 40, Done False

#### STATE 100

t intersectionyou are holding : a torch ( providing light ) t intersection the east / west corridor branches to the south here. Actions: ['west', 'east', 'put torch down', 'south'] Qvalues: [7.21, 6.7, 6.47, 5.87] Action: east Reward: 0, Score 40, Done True

#### STATE 101

round room there is a shovel lying here. you are holding : a torch ( providing light ) round room this room is a conic surface with exits at even multiples of 90 degrees. in the center is a regular square pyramid with a narrow vertex angle. there is a shovel lying here. Actions: ['south', 'north', 'take shovel', 'examine obelisk', 'put torch down', 'west', 'east', 'up'] Qvalues: [7.82, 7.45, 7.12, 6.99, 6.59, 6.5, 6.18, 4.91] Action: reset Reward: 0, Score 0, Done False