MP5_DQNLSTM_EC

May 1, 2024

1 Creating a DQN LSTM Agent

```
[]: %matplotlib inline
     import sys
     import gym
     import torch
     import pylab
     import random
     import numpy as np
     from collections import deque
     from datetime import datetime
     from copy import deepcopy
     import torch.nn as nn
     import torch.optim as optim
     import torch.nn.functional as F
     from torch.autograd import Variable
     from utils import find_max_lives, check_live, get_frame, get_init_state
     from model import DQN, DQN_LSTM
     from config import *
     import matplotlib.pyplot as plt
     %load_ext autoreload
     %autoreload 2
```

The autoreload extension is already loaded. To reload it, use: %reload_ext autoreload

```
[ ]: env = gym.make('BreakoutDeterministic-v4')
state = env.reset()
```

A.L.E: Arcade Learning Environment (version 0.8.1+53f58b7) [Powered by Stella]

```
[]: number_lives = find_max_lives(env)
state_size = env.observation_space.shape
action_size = 3 #fire, left, and right
```

Now we will create a DQN agent that uses LSTM rather than past frames as history. We augment the experience replay to contain previous few (state, action, reward, next state) tuples rather than just one (state, action, reward, next state) tuple so it can work with LSTMs. Use the previous tuples to generate the current hidden and context vector for LSTM. Esentially, when you get a sample from replay buffer during training, start with the first tuple and generate hidden and context vector from this and pass it onto the next tuple. Do so consequitively till you reach the last tuple, where you will make Q value predictions. Training loop remains nearly the same.

```
[]: from agent_lstm import Agent_LSTM
    agent = Agent_LSTM(action_size)
    evaluation_reward = deque(maxlen=evaluation_reward_length)
    frame = 0
    memory_size = 0
```

```
[]: EPISODES = 20000 print(EPISODES)
```

20000

```
[]: # num_layer = 3
     HISTORY_SIZE = 1
     rewards, episodes = [], []
     best eval reward = 0
     halt_flag = 0
     for e in range(EPISODES):
         done = False
         score = 0
         history = np.zeros([HISTORY_SIZE + 1, 84, 84], dtype=np.uint8)
         step = 0
         state, _ = env.reset()
         next_state = state
         life = number_lives
         hidden = None
         get_init_state(history, state, HISTORY_SIZE)
         while not done:
             step += 1
             frame += 1
             # Perform a fire action if ball is no longer on screen to continue onto \Box
      \rightarrownext life
             if step > 1 and len(np.unique(next_state[:189] == state[:189])) < 2:</pre>
                  action = torch.tensor([[0]]).cuda()
             else:
```

```
action, hidden = agent.get_action(np.float32(history[:1, :, :]) / _ _
4255., hidden)
      state = next_state
      next_state, reward, terminated, truncated, info = env.step(action + 1)
      done = terminated or truncated
      frame_next_state = get_frame(next_state)
      history[1, :, :] = frame next state
      terminal_state = check_live(life, info['lives'])
      life = info['lives']
      r = reward
      # Store the transition in memory
      agent.memory.push(deepcopy(frame_next_state), action.cpu(), r, __
→terminal_state)
      # Start training after random sample generation
      if(frame >= train_frame):
           agent.train_policy_net(frame)
      score += reward
      history[:1, :, :] = history[1:, :, :]
      if done:
          evaluation_reward.append(score)
          rewards.append(np.mean(evaluation_reward))
          episodes.append(e)
          pylab.plot(episodes, rewards, 'b')
          pylab.xlabel('Episodes')
          pylab.ylabel('Rewards')
          pylab.title('Episodes vs Reward')
          pylab.savefig("./save_graph/breakout_dqn_lstm.png") # save graph_
→for training visualization
           # every episode, plot the play time
          print("episode:", e, " score:", score, " memory length:",
                len(agent.memory), " epsilon:", agent.epsilon, " steps:", |
⇔step,
                    lr:", agent.optimizer.param_groups[0]['lr'], "

→evaluation reward:", np.mean(evaluation_reward))
           # if the mean of scores of last 100 episode is bigger than 8 save_{\sqcup}
→model
           ### Change this save condition to whatever you prefer ###
           if np.mean(evaluation_reward) > 8.0 and np.mean(evaluation_reward)
→> best eval reward:
```

```
torch.save(agent.policy_net, "./save_model/breakout_dqn_lstm.

pth")

best_eval_reward = np.mean(evaluation_reward)

if np.mean(evaluation_reward) > 8.2:

    halt_flag = 1

    break

if halt_flag == 1:
    break
```

```
episode: 0
             score: 0.0
                          memory length: 123
                                               epsilon: 1.0
                                                               steps: 123
                                                                             lr:
0.0001
           evaluation reward: 0.0
episode: 1
             score: 2.0
                          memory length: 321
                                               epsilon: 1.0
                                                               steps: 198
                                                                             lr:
0.0001
           evaluation reward: 1.0
episode: 2
             score: 0.0
                          memory length: 444
                                               epsilon: 1.0
                                                               steps: 123
                                                                             lr:
0.0001
           score: 3.0
                          memory length: 709
                                               epsilon: 1.0
                                                               steps: 265
episode: 3
                                                                             lr:
0.0001
           evaluation reward: 1.25
                          memory length: 968
episode: 4
             score: 4.0
                                               epsilon: 1.0
                                                               steps: 259
                                                                             lr:
0.0001
           evaluation reward: 1.8
episode: 5
             score: 0.0
                          memory length: 1091
                                                epsilon: 1.0
                                                                steps: 123
               evaluation reward: 1.5
lr: 0.0001
             score: 1.0
                          memory length: 1261
                                                                steps: 170
episode: 6
                                                epsilon: 1.0
               evaluation reward: 1.4285714285714286
lr: 0.0001
             score: 3.0
                          memory length: 1507
episode: 7
                                                epsilon: 1.0
                                                                steps: 246
lr: 0.0001
               evaluation reward: 1.625
episode: 8
             score: 1.0
                          memory length: 1678
                                                epsilon: 1.0
                                                                steps: 171
               evaluation reward: 1.555555555555556
lr: 0.0001
episode: 9
             score: 0.0
                          memory length: 1801
                                                epsilon: 1.0
                                                                steps: 123
lr: 0.0001
               evaluation reward: 1.4
episode: 10
              score: 1.0
                           memory length: 1954
                                                 epsilon: 1.0
                                                                 steps: 153
               evaluation reward: 1.36363636363635
lr: 0.0001
episode: 11
              score: 0.0
                           memory length: 2077
                                                 epsilon: 1.0
                                                                 steps: 123
lr: 0.0001
               evaluation reward: 1.25
episode: 12
              score: 0.0
                           memory length: 2199
                                                 epsilon: 1.0
                                                                 steps: 122
lr: 0.0001
               evaluation reward: 1.1538461538461537
                           memory length: 2464
episode: 13
              score: 3.0
                                                 epsilon: 1.0
                                                                 steps: 265
lr: 0.0001
               evaluation reward: 1.2857142857142858
episode: 14
              score: 0.0
                           memory length: 2587
                                                 epsilon: 1.0
                                                                 steps: 123
lr: 0.0001
               evaluation reward: 1.2
episode: 15
              score: 1.0
                           memory length: 2738
                                                 epsilon: 1.0
                                                                 steps: 151
lr: 0.0001
               evaluation reward: 1.1875
                           memory length: 2937
episode: 16
              score: 2.0
                                                 epsilon: 1.0
                                                                 steps: 199
lr: 0.0001
               evaluation reward: 1.2352941176470589
episode: 17
              score: 1.0
                           memory length: 3108
                                                 epsilon: 1.0
                                                                 steps: 171
               evaluation reward: 1.2222222222223
lr: 0.0001
episode: 18
              score: 2.0
                           memory length: 3306
                                                 epsilon: 1.0
                                                                 steps: 198
lr: 0.0001
               evaluation reward: 1.263157894736842
```

```
memory length: 3429
                                                  epsilon: 1.0
episode: 19
              score: 0.0
                                                                   steps: 123
lr: 0.0001
               evaluation reward: 1.2
episode: 20
              score: 1.0
                            memory length: 3598
                                                  epsilon: 1.0
                                                                   steps: 169
lr: 0.0001
               evaluation reward: 1.1904761904761905
                            memory length: 3721
episode: 21
              score: 0.0
                                                  epsilon: 1.0
                                                                   steps: 123
               evaluation reward: 1.1363636363636365
lr: 0.0001
episode: 22
              score: 3.0
                            memory length: 3946
                                                  epsilon: 1.0
                                                                   steps: 225
lr: 0.0001
               evaluation reward: 1.2173913043478262
episode: 23
              score: 2.0
                           memory length: 4164
                                                  epsilon: 1.0
                                                                   steps: 218
lr: 0.0001
               evaluation reward: 1.25
                           memory length: 4287
              score: 0.0
                                                  epsilon: 1.0
                                                                   steps: 123
episode: 24
               evaluation reward: 1.2
lr: 0.0001
              score: 2.0
                            memory length: 4505
episode: 25
                                                  epsilon: 1.0
                                                                   steps: 218
lr: 0.0001
               evaluation reward: 1.2307692307692308
episode: 26
              score: 2.0
                            memory length: 4689
                                                  epsilon: 1.0
                                                                   steps: 184
               evaluation reward: 1.2592592592592593
lr: 0.0001
episode: 27
              score: 1.0
                            memory length: 4858
                                                                   steps: 169
                                                  epsilon: 1.0
lr: 0.0001
               evaluation reward: 1.25
              score: 4.0
                            memory length: 5176
episode: 28
                                                  epsilon: 1.0
                                                                   steps: 318
lr: 0.0001
               evaluation reward: 1.3448275862068966
              score: 2.0
episode: 29
                            memory length: 5393
                                                  epsilon: 1.0
                                                                   steps: 217
lr: 0.0001
               evaluation reward: 1.366666666666667
episode: 30
              score: 1.0
                           memory length: 5544
                                                  epsilon: 1.0
                                                                   steps: 151
               evaluation reward: 1.3548387096774193
lr: 0.0001
              score: 0.0
                           memory length: 5666
                                                  epsilon: 1.0
                                                                   steps: 122
episode: 31
lr: 0.0001
               evaluation reward: 1.3125
episode: 32
              score: 4.0
                           memory length: 5943
                                                  epsilon: 1.0
                                                                   steps: 277
lr: 0.0001
               evaluation reward: 1.393939393939394
episode: 33
              score: 0.0
                           memory length: 6066
                                                  epsilon: 1.0
                                                                   steps: 123
lr: 0.0001
               evaluation reward: 1.3529411764705883
                            memory length: 6263
episode: 34
              score: 2.0
                                                  epsilon: 1.0
                                                                   steps: 197
               evaluation reward: 1.3714285714285714
lr: 0.0001
episode: 35
              score: 1.0
                           memory length: 6432
                                                  epsilon: 1.0
                                                                   steps: 169
lr: 0.0001
               evaluation reward: 1.3611111111111112
                            memory length: 6659
              score: 3.0
                                                                   steps: 227
episode: 36
                                                  epsilon: 1.0
lr: 0.0001
               evaluation reward: 1.4054054054054055
episode: 37
              score: 0.0
                            memory length: 6782
                                                  epsilon: 1.0
                                                                   steps: 123
lr: 0.0001
               evaluation reward: 1.368421052631579
                           memory length: 7033
episode: 38
              score: 3.0
                                                  epsilon: 1.0
                                                                   steps: 251
lr: 0.0001
               evaluation reward: 1.4102564102564104
                           memory length: 7184
episode: 39
              score: 1.0
                                                  epsilon: 1.0
                                                                   steps: 151
               evaluation reward: 1.4
lr: 0.0001
              score: 3.0
                            memory length: 7451
episode: 40
                                                  epsilon: 1.0
                                                                   steps: 267
lr: 0.0001
               evaluation reward: 1.4390243902439024
episode: 41
              score: 1.0
                            memory length: 7622
                                                                   steps: 171
                                                  epsilon: 1.0
lr: 0.0001
               evaluation reward: 1.4285714285714286
episode: 42
              score: 1.0
                           memory length: 7773
                                                                   steps: 151
                                                  epsilon: 1.0
lr: 0.0001
               evaluation reward: 1.4186046511627908
```

```
memory length: 7991
episode: 43
              score: 2.0
                                                 epsilon: 1.0
                                                                 steps: 218
lr: 0.0001
               evaluation reward: 1.4318181818181819
episode: 44
              score: 0.0
                           memory length: 8114
                                                 epsilon: 1.0
                                                                 steps: 123
lr: 0.0001
               evaluation reward: 1.4
                           memory length: 8237
episode: 45
              score: 0.0
                                                 epsilon: 1.0
                                                                 steps: 123
               evaluation reward: 1.3695652173913044
lr: 0.0001
episode: 46
              score: 0.0
                           memory length: 8360
                                                 epsilon: 1.0
                                                                 steps: 123
lr: 0.0001
               evaluation reward: 1.3404255319148937
episode: 47
              score: 4.0
                           memory length: 8656
                                                 epsilon: 1.0
                                                                 steps: 296
lr: 0.0001
               evaluation reward: 1.39583333333333333
                           memory length: 8778
episode: 48
              score: 0.0
                                                 epsilon: 1.0
                                                                 steps: 122
               evaluation reward: 1.3673469387755102
lr: 0.0001
                           memory length: 8929
episode: 49
              score: 1.0
                                                 epsilon: 1.0
                                                                 steps: 151
lr: 0.0001
               evaluation reward: 1.36
episode: 50
              score: 3.0
                           memory length: 9194
                                                 epsilon: 1.0
                                                                 steps: 265
               evaluation reward: 1.392156862745098
lr: 0.0001
episode: 51
              score: 1.0
                           memory length: 9363
                                                                 steps: 169
                                                 epsilon: 1.0
               evaluation reward: 1.3846153846153846
lr: 0.0001
                           memory length: 9486
episode: 52
              score: 0.0
                                                 epsilon: 1.0
                                                                 steps: 123
lr: 0.0001
               evaluation reward: 1.3584905660377358
episode: 53
              score: 0.0
                           memory length: 9609
                                                 epsilon: 1.0
                                                                 steps: 123
lr: 0.0001
               episode: 54
              score: 3.0
                           memory length: 9842
                                                 epsilon: 1.0
                                                                 steps: 233
               evaluation reward: 1.36363636363635
lr: 0.0001
              score: 2.0
                           memory length: 10040
                                                                  steps: 198
episode: 55
                                                  epsilon: 1.0
lr: 0.0001
               evaluation reward: 1.375
episode: 56
              score: 2.0
                           memory length: 10240
                                                  epsilon: 1.0
                                                                  steps: 200
lr: 0.0001
               evaluation reward: 1.3859649122807018
episode: 57
              score: 0.0
                           memory length: 10363
                                                  epsilon: 1.0
                                                                  steps: 123
lr: 0.0001
               evaluation reward: 1.3620689655172413
                           memory length: 10531
episode: 58
              score: 1.0
                                                  epsilon: 1.0
                                                                  steps: 168
lr: 0.0001
               evaluation reward: 1.3559322033898304
episode: 59
              score: 0.0
                           memory length: 10654
                                                  epsilon: 1.0
                                                                  steps: 123
lr: 0.0001
               memory length: 10777
              score: 0.0
                                                                  steps: 123
episode: 60
                                                  epsilon: 1.0
lr: 0.0001
               evaluation reward: 1.3114754098360655
episode: 61
              score: 2.0
                           memory length: 10997
                                                  epsilon: 1.0
                                                                  steps: 220
lr: 0.0001
               evaluation reward: 1.3225806451612903
                           memory length: 11120
episode: 62
              score: 0.0
                                                  epsilon: 1.0
                                                                  steps: 123
lr: 0.0001
               evaluation reward: 1.3015873015873016
episode: 63
              score: 1.0
                           memory length: 11288
                                                  epsilon: 1.0
                                                                  steps: 168
               evaluation reward: 1.296875
lr: 0.0001
                           memory length: 11563
episode: 64
              score: 4.0
                                                  epsilon: 1.0
                                                                  steps: 275
lr: 0.0001
               evaluation reward: 1.3384615384615384
episode: 65
              score: 2.0
                           memory length: 11761
                                                                  steps: 198
                                                  epsilon: 1.0
lr: 0.0001
               evaluation reward: 1.3484848484848484
episode: 66
              score: 4.0
                           memory length: 12075
                                                  epsilon: 1.0
                                                                  steps: 314
lr: 0.0001
               evaluation reward: 1.3880597014925373
```

```
memory length: 12274
episode: 67
              score: 2.0
                                                  epsilon: 1.0
                                                                  steps: 199
               evaluation reward: 1.3970588235294117
lr: 0.0001
episode: 68
              score: 4.0
                           memory length: 12528
                                                  epsilon: 1.0
                                                                  steps: 254
lr: 0.0001
               evaluation reward: 1.434782608695652
              score: 2.0
                           memory length: 12708
episode: 69
                                                  epsilon: 1.0
                                                                  steps: 180
               evaluation reward: 1.4428571428571428
lr: 0.0001
episode: 70
              score: 2.0
                           memory length: 12907
                                                  epsilon: 1.0
                                                                  steps: 199
lr: 0.0001
               evaluation reward: 1.4507042253521127
episode: 71
              score: 1.0
                           memory length: 13075
                                                  epsilon: 1.0
                                                                  steps: 168
               lr: 0.0001
              score: 4.0
                           memory length: 13340
episode: 72
                                                  epsilon: 1.0
                                                                  steps: 265
               evaluation reward: 1.4794520547945205
lr: 0.0001
              score: 2.0
                           memory length: 13538
episode: 73
                                                  epsilon: 1.0
                                                                  steps: 198
lr: 0.0001
               evaluation reward: 1.4864864864864
episode: 74
              score: 0.0
                           memory length: 13661
                                                  epsilon: 1.0
                                                                  steps: 123
               evaluation reward: 1.466666666666666
lr: 0.0001
episode: 75
              score: 2.0
                           memory length: 13862
                                                                  steps: 201
                                                  epsilon: 1.0
               evaluation reward: 1.4736842105263157
lr: 0.0001
                           memory length: 13985
episode: 76
              score: 0.0
                                                  epsilon: 1.0
                                                                  steps: 123
lr: 0.0001
               evaluation reward: 1.45454545454546
episode: 77
              score: 0.0
                           memory length: 14107
                                                  epsilon: 1.0
                                                                  steps: 122
lr: 0.0001
               evaluation reward: 1.435897435897436
                                                                  steps: 169
episode: 78
              score: 1.0
                           memory length: 14276
                                                  epsilon: 1.0
               evaluation reward: 1.4303797468354431
lr: 0.0001
              score: 2.0
                           memory length: 14495
                                                                  steps: 219
episode: 79
                                                  epsilon: 1.0
lr: 0.0001
               evaluation reward: 1.4375
episode: 80
              score: 1.0
                           memory length: 14647
                                                  epsilon: 1.0
                                                                  steps: 152
lr: 0.0001
               evaluation reward: 1.4320987654320987
                           memory length: 14770
episode: 81
              score: 0.0
                                                  epsilon: 1.0
                                                                  steps: 123
lr: 0.0001
               evaluation reward: 1.4146341463414633
                           memory length: 14995
episode: 82
              score: 3.0
                                                  epsilon: 1.0
                                                                  steps: 225
lr: 0.0001
               evaluation reward: 1.4337349397590362
episode: 83
              score: 1.0
                           memory length: 15165
                                                  epsilon: 1.0
                                                                  steps: 170
lr: 0.0001
               evaluation reward: 1.4285714285714286
              score: 0.0
                           memory length: 15288
                                                                  steps: 123
episode: 84
                                                  epsilon: 1.0
lr: 0.0001
               evaluation reward: 1.411764705882353
episode: 85
              score: 0.0
                           memory length: 15410
                                                                  steps: 122
                                                  epsilon: 1.0
lr: 0.0001
               evaluation reward: 1.3953488372093024
                           memory length: 15607
episode: 86
              score: 2.0
                                                  epsilon: 1.0
                                                                  steps: 197
lr: 0.0001
               evaluation reward: 1.4022988505747127
episode: 87
              score: 1.0
                           memory length: 15775
                                                  epsilon: 1.0
                                                                  steps: 168
               evaluation reward: 1.3977272727272727
lr: 0.0001
              score: 2.0
                           memory length: 15995
episode: 88
                                                  epsilon: 1.0
                                                                  steps: 220
lr: 0.0001
               evaluation reward: 1.404494382022472
episode: 89
              score: 0.0
                           memory length: 16117
                                                                  steps: 122
                                                  epsilon: 1.0
lr: 0.0001
               memory length: 16286
episode: 90
              score: 1.0
                                                                  steps: 169
                                                  epsilon: 1.0
lr: 0.0001
               evaluation reward: 1.3846153846153846
```

```
memory length: 16483
                                                   epsilon: 1.0
                                                                    steps: 197
episode: 91
              score: 2.0
               evaluation reward: 1.391304347826087
lr: 0.0001
episode: 92
              score: 2.0
                           memory length: 16684
                                                   epsilon: 1.0
                                                                    steps: 201
lr: 0.0001
               evaluation reward: 1.3978494623655915
                           memory length: 16954
episode: 93
              score: 4.0
                                                   epsilon: 1.0
                                                                    steps: 270
               evaluation reward: 1.425531914893617
lr: 0.0001
episode: 94
              score: 0.0
                           memory length: 17077
                                                   epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.4105263157894736
episode: 95
              score: 0.0
                           memory length: 17200
                                                   epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.39583333333333333
              score: 1.0
                           memory length: 17351
                                                                    steps: 151
episode: 96
                                                   epsilon: 1.0
lr: 0.0001
               evaluation reward: 1.3917525773195876
              score: 3.0
                           memory length: 17577
                                                                    steps: 226
episode: 97
                                                   epsilon: 1.0
               evaluation reward: 1.4081632653061225
lr: 0.0001
episode: 98
              score: 2.0
                           memory length: 17775
                                                   epsilon: 1.0
                                                                    steps: 198
               evaluation reward: 1.4141414141414141
lr: 0.0001
episode: 99
              score: 1.0
                           memory length: 17945
                                                   epsilon: 1.0
                                                                    steps: 170
lr: 0.0001
               evaluation reward: 1.41
                            memory length: 18068
episode: 100
               score: 0.0
                                                    epsilon: 1.0
                                                                     steps: 123
lr: 0.0001
               evaluation reward: 1.41
episode: 101
               score: 3.0
                            memory length: 18317
                                                    epsilon: 1.0
                                                                     steps: 249
lr: 0.0001
               evaluation reward: 1.42
episode: 102
               score: 1.0
                            memory length: 18489
                                                    epsilon: 1.0
                                                                     steps: 172
               evaluation reward: 1.43
lr: 0.0001
episode: 103
               score: 0.0
                            memory length: 18611
                                                    epsilon: 1.0
                                                                     steps: 122
lr: 0.0001
               evaluation reward: 1.4
               score: 3.0
                            memory length: 18878
episode: 104
                                                    epsilon: 1.0
                                                                     steps: 267
lr: 0.0001
               evaluation reward: 1.39
episode: 105
               score: 2.0
                            memory length: 19059
                                                    epsilon: 1.0
                                                                     steps: 181
lr: 0.0001
               evaluation reward: 1.41
                            memory length: 19182
                                                    epsilon: 1.0
                                                                     steps: 123
episode: 106
               score: 0.0
lr: 0.0001
               evaluation reward: 1.4
episode: 107
               score: 0.0
                            memory length: 19304
                                                    epsilon: 1.0
                                                                     steps: 122
lr: 0.0001
               evaluation reward: 1.37
               score: 2.0
                            memory length: 19502
                                                    epsilon: 1.0
                                                                     steps: 198
episode: 108
lr: 0.0001
               evaluation reward: 1.38
episode: 109
               score: 1.0
                            memory length: 19672
                                                    epsilon: 1.0
                                                                     steps: 170
lr: 0.0001
               evaluation reward: 1.39
                            memory length: 19795
                                                    epsilon: 1.0
episode: 110
               score: 0.0
                                                                     steps: 123
lr: 0.0001
               evaluation reward: 1.38
                            memory length: 20045
                                                    epsilon: 1.0
                                                                     steps: 250
episode: 111
               score: 3.0
               evaluation reward: 1.41
lr: 0.0001
                            memory length: 20168
                                                                     steps: 123
episode: 112
               score: 0.0
                                                    epsilon: 1.0
lr: 0.0001
               evaluation reward: 1.41
episode: 113
               score: 0.0
                            memory length: 20290
                                                    epsilon: 1.0
                                                                     steps: 122
lr: 0.0001
               evaluation reward: 1.38
episode: 114
               score: 1.0
                            memory length: 20461
                                                    epsilon: 1.0
                                                                     steps: 171
lr: 0.0001
               evaluation reward: 1.39
```

```
score: 2.0
                            memory length: 20659
                                                    epsilon: 1.0
                                                                    steps: 198
episode: 115
lr: 0.0001
               evaluation reward: 1.4
episode: 116
               score: 3.0
                            memory length: 20928
                                                    epsilon: 1.0
                                                                    steps: 269
lr: 0.0001
               evaluation reward: 1.41
                            memory length: 21174
episode: 117
               score: 3.0
                                                    epsilon: 1.0
                                                                    steps: 246
lr: 0.0001
               evaluation reward: 1.43
episode: 118
               score: 0.0
                            memory length: 21297
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.41
                            memory length: 21420
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 119
               score: 0.0
lr: 0.0001
               evaluation reward: 1.41
episode: 120
               score: 0.0
                            memory length: 21543
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.4
               score: 1.0
                            memory length: 21714
                                                    epsilon: 1.0
                                                                    steps: 171
episode: 121
lr: 0.0001
               evaluation reward: 1.41
episode: 122
               score: 3.0
                            memory length: 21947
                                                    epsilon: 1.0
                                                                    steps: 233
lr: 0.0001
               evaluation reward: 1.41
episode: 123
               score: 0.0
                            memory length: 22069
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.39
                            memory length: 22237
episode: 124
               score: 1.0
                                                    epsilon: 1.0
                                                                    steps: 168
lr: 0.0001
               evaluation reward: 1.4
episode: 125
               score: 2.0
                            memory length: 22435
                                                    epsilon: 1.0
                                                                    steps: 198
lr: 0.0001
               evaluation reward: 1.4
episode: 126
               score: 3.0
                            memory length: 22661
                                                    epsilon: 1.0
                                                                    steps: 226
               evaluation reward: 1.41
lr: 0.0001
episode: 127
               score: 2.0
                            memory length: 22858
                                                    epsilon: 1.0
                                                                    steps: 197
lr: 0.0001
               evaluation reward: 1.42
               score: 2.0
                            memory length: 23074
episode: 128
                                                    epsilon: 1.0
                                                                    steps: 216
lr: 0.0001
               evaluation reward: 1.4
episode: 129
               score: 2.0
                            memory length: 23271
                                                    epsilon: 1.0
                                                                    steps: 197
lr: 0.0001
               evaluation reward: 1.4
                            memory length: 23423
                                                    epsilon: 1.0
                                                                    steps: 152
episode: 130
               score: 1.0
lr: 0.0001
               evaluation reward: 1.4
episode: 131
               score: 4.0
                            memory length: 23679
                                                    epsilon: 1.0
                                                                    steps: 256
lr: 0.0001
               evaluation reward: 1.44
               score: 0.0
                            memory length: 23802
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 132
lr: 0.0001
               evaluation reward: 1.4
episode: 133
               score: 2.0
                            memory length: 23999
                                                    epsilon: 1.0
                                                                    steps: 197
lr: 0.0001
               evaluation reward: 1.42
                            memory length: 24122
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 134
               score: 0.0
lr: 0.0001
               evaluation reward: 1.4
               score: 4.0
                            memory length: 24401
                                                    epsilon: 1.0
                                                                    steps: 279
episode: 135
               evaluation reward: 1.43
lr: 0.0001
               score: 4.0
                            memory length: 24714
                                                    epsilon: 1.0
                                                                    steps: 313
episode: 136
               evaluation reward: 1.44
lr: 0.0001
episode: 137
               score: 0.0
                            memory length: 24836
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.44
episode: 138
               score: 0.0
                            memory length: 24959
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.41
```

```
score: 3.0
                            memory length: 25208
                                                    epsilon: 1.0
                                                                    steps: 249
episode: 139
lr: 0.0001
               evaluation reward: 1.43
episode: 140
               score: 0.0
                            memory length: 25331
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.4
episode: 141
               score: 0.0
                            memory length: 25453
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.39
episode: 142
               score: 1.0
                            memory length: 25622
                                                    epsilon: 1.0
                                                                    steps: 169
lr: 0.0001
               evaluation reward: 1.39
                                                    epsilon: 1.0
                                                                    steps: 151
episode: 143
               score: 1.0
                            memory length: 25773
               evaluation reward: 1.38
lr: 0.0001
episode: 144
               score: 0.0
                            memory length: 25895
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.38
               score: 2.0
                            memory length: 26093
                                                    epsilon: 1.0
                                                                    steps: 198
episode: 145
lr: 0.0001
               evaluation reward: 1.4
episode: 146
               score: 3.0
                            memory length: 26338
                                                    epsilon: 1.0
                                                                    steps: 245
lr: 0.0001
               evaluation reward: 1.43
episode: 147
               score: 0.0
                            memory length: 26460
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.39
               score: 2.0
                            memory length: 26660
episode: 148
                                                    epsilon: 1.0
                                                                    steps: 200
lr: 0.0001
               evaluation reward: 1.41
episode: 149
               score: 4.0
                            memory length: 26936
                                                    epsilon: 1.0
                                                                    steps: 276
lr: 0.0001
               evaluation reward: 1.44
episode: 150
               score: 0.0
                            memory length: 27059
                                                    epsilon: 1.0
                                                                    steps: 123
               evaluation reward: 1.41
lr: 0.0001
episode: 151
               score: 4.0
                            memory length: 27334
                                                    epsilon: 1.0
                                                                    steps: 275
lr: 0.0001
               evaluation reward: 1.44
               score: 2.0
                            memory length: 27552
episode: 152
                                                    epsilon: 1.0
                                                                    steps: 218
lr: 0.0001
               evaluation reward: 1.46
episode: 153
               score: 1.0
                            memory length: 27721
                                                    epsilon: 1.0
                                                                    steps: 169
lr: 0.0001
               evaluation reward: 1.47
                            memory length: 27844
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 154
               score: 0.0
lr: 0.0001
               evaluation reward: 1.44
episode: 155
               score: 2.0
                            memory length: 28062
                                                    epsilon: 1.0
                                                                    steps: 218
lr: 0.0001
               evaluation reward: 1.44
               score: 2.0
                            memory length: 28259
                                                    epsilon: 1.0
                                                                    steps: 197
episode: 156
lr: 0.0001
               evaluation reward: 1.44
episode: 157
               score: 3.0
                            memory length: 28486
                                                    epsilon: 1.0
                                                                    steps: 227
lr: 0.0001
               evaluation reward: 1.47
                            memory length: 28609
                                                    epsilon: 1.0
episode: 158
               score: 0.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.46
               score: 0.0
                            memory length: 28732
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 159
               evaluation reward: 1.46
lr: 0.0001
               score: 1.0
                            memory length: 28901
                                                    epsilon: 1.0
                                                                    steps: 169
episode: 160
lr: 0.0001
               evaluation reward: 1.47
episode: 161
               score: 7.0
                            memory length: 29163
                                                    epsilon: 1.0
                                                                    steps: 262
lr: 0.0001
               evaluation reward: 1.52
episode: 162
               score: 1.0
                            memory length: 29331
                                                    epsilon: 1.0
                                                                    steps: 168
lr: 0.0001
               evaluation reward: 1.53
```

```
score: 3.0
                            memory length: 29576
                                                    epsilon: 1.0
                                                                    steps: 245
episode: 163
lr: 0.0001
               evaluation reward: 1.55
episode: 164
               score: 0.0
                            memory length: 29699
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.51
                            memory length: 29822
episode: 165
               score: 0.0
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.49
episode: 166
               score: 1.0
                            memory length: 29972
                                                    epsilon: 1.0
                                                                    steps: 150
lr: 0.0001
               evaluation reward: 1.46
                            memory length: 30187
                                                    epsilon: 1.0
                                                                    steps: 215
episode: 167
               score: 2.0
               evaluation reward: 1.46
lr: 0.0001
episode: 168
                            memory length: 30404
               score: 2.0
                                                    epsilon: 1.0
                                                                    steps: 217
lr: 0.0001
               evaluation reward: 1.44
               score: 1.0
                            memory length: 30555
                                                    epsilon: 1.0
                                                                    steps: 151
episode: 169
lr: 0.0001
               evaluation reward: 1.43
episode: 170
               score: 0.0
                            memory length: 30678
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.41
episode: 171
               score: 0.0
                            memory length: 30801
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.4
                            memory length: 30924
episode: 172
               score: 0.0
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.36
                            memory length: 31142
                                                                    steps: 218
episode: 173
               score: 2.0
                                                    epsilon: 1.0
lr: 0.0001
               evaluation reward: 1.36
episode: 174
               score: 0.0
                            memory length: 31265
                                                    epsilon: 1.0
                                                                    steps: 123
               evaluation reward: 1.36
lr: 0.0001
episode: 175
               score: 0.0
                            memory length: 31387
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.34
               score: 0.0
                            memory length: 31510
episode: 176
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.34
                            memory length: 31681
episode: 177
               score: 1.0
                                                    epsilon: 1.0
                                                                    steps: 171
lr: 0.0001
               evaluation reward: 1.35
                            memory length: 31878
                                                    epsilon: 1.0
                                                                    steps: 197
episode: 178
               score: 2.0
lr: 0.0001
               evaluation reward: 1.36
episode: 179
               score: 0.0
                            memory length: 32000
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.34
               score: 2.0
                            memory length: 32200
                                                    epsilon: 1.0
                                                                    steps: 200
episode: 180
lr: 0.0001
               evaluation reward: 1.35
episode: 181
               score: 1.0
                            memory length: 32369
                                                    epsilon: 1.0
                                                                    steps: 169
lr: 0.0001
               evaluation reward: 1.36
                            memory length: 32491
                                                    epsilon: 1.0
                                                                    steps: 122
episode: 182
               score: 0.0
lr: 0.0001
               evaluation reward: 1.33
                            memory length: 32660
                                                    epsilon: 1.0
                                                                    steps: 169
episode: 183
               score: 1.0
               evaluation reward: 1.33
lr: 0.0001
               score: 2.0
                            memory length: 32877
                                                    epsilon: 1.0
                                                                    steps: 217
episode: 184
lr: 0.0001
               evaluation reward: 1.35
episode: 185
               score: 2.0
                            memory length: 33075
                                                    epsilon: 1.0
                                                                    steps: 198
lr: 0.0001
               evaluation reward: 1.37
episode: 186
               score: 0.0
                            memory length: 33198
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.35
```

```
score: 0.0
                            memory length: 33321
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 187
lr: 0.0001
               evaluation reward: 1.34
episode: 188
               score: 0.0
                            memory length: 33444
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.32
episode: 189
               score: 3.0
                            memory length: 33690
                                                    epsilon: 1.0
                                                                    steps: 246
               evaluation reward: 1.35
lr: 0.0001
episode: 190
               score: 2.0
                            memory length: 33907
                                                    epsilon: 1.0
                                                                    steps: 217
lr: 0.0001
               evaluation reward: 1.36
                                                    epsilon: 1.0
                                                                    steps: 198
episode: 191
               score: 2.0
                            memory length: 34105
               evaluation reward: 1.36
lr: 0.0001
episode: 192
               score: 2.0
                            memory length: 34307
                                                    epsilon: 1.0
                                                                    steps: 202
lr: 0.0001
               evaluation reward: 1.36
               score: 1.0
                            memory length: 34460
                                                    epsilon: 1.0
                                                                    steps: 153
episode: 193
lr: 0.0001
               evaluation reward: 1.33
episode: 194
               score: 4.0
                            memory length: 34755
                                                    epsilon: 1.0
                                                                    steps: 295
lr: 0.0001
               evaluation reward: 1.37
episode: 195
               score: 0.0
                            memory length: 34878
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.37
                            memory length: 35001
episode: 196
               score: 0.0
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.36
                                                                    steps: 218
episode: 197
               score: 2.0
                            memory length: 35219
                                                    epsilon: 1.0
lr: 0.0001
               evaluation reward: 1.35
episode: 198
               score: 2.0
                            memory length: 35399
                                                    epsilon: 1.0
                                                                    steps: 180
               evaluation reward: 1.35
lr: 0.0001
episode: 199
               score: 1.0
                            memory length: 35570
                                                    epsilon: 1.0
                                                                    steps: 171
lr: 0.0001
               evaluation reward: 1.35
               score: 0.0
                            memory length: 35693
episode: 200
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.35
                            memory length: 35936
episode: 201
               score: 3.0
                                                    epsilon: 1.0
                                                                    steps: 243
lr: 0.0001
               evaluation reward: 1.35
                            memory length: 36230
                                                    epsilon: 1.0
                                                                    steps: 294
episode: 202
               score: 4.0
lr: 0.0001
               evaluation reward: 1.38
episode: 203
               score: 5.0
                            memory length: 36527
                                                    epsilon: 1.0
                                                                    steps: 297
lr: 0.0001
               evaluation reward: 1.43
               score: 1.0
                            memory length: 36677
                                                    epsilon: 1.0
                                                                    steps: 150
episode: 204
lr: 0.0001
               evaluation reward: 1.41
episode: 205
               score: 0.0
                            memory length: 36799
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.39
                            memory length: 36922
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 206
               score: 0.0
lr: 0.0001
               evaluation reward: 1.39
                            memory length: 37148
                                                    epsilon: 1.0
                                                                    steps: 226
episode: 207
               score: 3.0
               evaluation reward: 1.42
lr: 0.0001
               score: 0.0
                            memory length: 37271
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 208
lr: 0.0001
               evaluation reward: 1.4
episode: 209
               score: 2.0
                            memory length: 37469
                                                    epsilon: 1.0
                                                                    steps: 198
lr: 0.0001
               evaluation reward: 1.41
episode: 210
               score: 2.0
                            memory length: 37690
                                                    epsilon: 1.0
                                                                    steps: 221
lr: 0.0001
               evaluation reward: 1.43
```

```
memory length: 37859
                                                    epsilon: 1.0
                                                                    steps: 169
episode: 211
               score: 1.0
lr: 0.0001
               evaluation reward: 1.41
episode: 212
               score: 4.0
                            memory length: 38134
                                                    epsilon: 1.0
                                                                    steps: 275
lr: 0.0001
               evaluation reward: 1.45
                            memory length: 38447
episode: 213
               score: 4.0
                                                    epsilon: 1.0
                                                                    steps: 313
lr: 0.0001
               evaluation reward: 1.49
episode: 214
               score: 1.0
                            memory length: 38598
                                                    epsilon: 1.0
                                                                    steps: 151
lr: 0.0001
               evaluation reward: 1.49
                                                    epsilon: 1.0
                                                                    steps: 169
episode: 215
               score: 1.0
                            memory length: 38767
               evaluation reward: 1.48
lr: 0.0001
episode: 216
               score: 0.0
                            memory length: 38889
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.45
               score: 1.0
                            memory length: 39060
                                                    epsilon: 1.0
                                                                    steps: 171
episode: 217
lr: 0.0001
               evaluation reward: 1.43
episode: 218
               score: 0.0
                            memory length: 39182
                                                    epsilon: 1.0
                                                                    steps: 122
               evaluation reward: 1.43
lr: 0.0001
episode: 219
               score: 2.0
                            memory length: 39399
                                                    epsilon: 1.0
                                                                    steps: 217
lr: 0.0001
               evaluation reward: 1.45
               score: 3.0
                            memory length: 39648
episode: 220
                                                    epsilon: 1.0
                                                                    steps: 249
lr: 0.0001
               evaluation reward: 1.48
episode: 221
               score: 1.0
                            memory length: 39799
                                                    epsilon: 1.0
                                                                    steps: 151
lr: 0.0001
               evaluation reward: 1.48
episode: 222
               score: 2.0
                            memory length: 40015
                                                    epsilon: 1.0
                                                                    steps: 216
               evaluation reward: 1.47
lr: 0.0001
episode: 223
               score: 1.0
                            memory length: 40187
                                                    epsilon: 1.0
                                                                    steps: 172
lr: 0.0001
               evaluation reward: 1.48
               score: 3.0
                            memory length: 40434
episode: 224
                                                    epsilon: 1.0
                                                                    steps: 247
lr: 0.0001
               evaluation reward: 1.5
                            memory length: 40603
episode: 225
               score: 1.0
                                                    epsilon: 1.0
                                                                    steps: 169
lr: 0.0001
               evaluation reward: 1.49
                            memory length: 40848
                                                    epsilon: 1.0
                                                                    steps: 245
episode: 226
               score: 3.0
lr: 0.0001
               evaluation reward: 1.49
episode: 227
               score: 2.0
                            memory length: 41046
                                                    epsilon: 1.0
                                                                    steps: 198
lr: 0.0001
               evaluation reward: 1.49
               score: 0.0
                            memory length: 41169
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 228
lr: 0.0001
               evaluation reward: 1.47
episode: 229
               score: 2.0
                            memory length: 41367
                                                    epsilon: 1.0
                                                                    steps: 198
lr: 0.0001
               evaluation reward: 1.47
                            memory length: 41566
                                                    epsilon: 1.0
                                                                    steps: 199
episode: 230
               score: 2.0
lr: 0.0001
               evaluation reward: 1.48
                                                    epsilon: 1.0
                                                                    steps: 171
episode: 231
               score: 1.0
                            memory length: 41737
               evaluation reward: 1.45
lr: 0.0001
               score: 1.0
                            memory length: 41906
                                                    epsilon: 1.0
                                                                    steps: 169
episode: 232
lr: 0.0001
               evaluation reward: 1.46
episode: 233
               score: 2.0
                            memory length: 42125
                                                    epsilon: 1.0
                                                                    steps: 219
lr: 0.0001
               evaluation reward: 1.46
episode: 234
               score: 3.0
                            memory length: 42390
                                                    epsilon: 1.0
                                                                    steps: 265
lr: 0.0001
               evaluation reward: 1.49
```

```
score: 0.0
                            memory length: 42513
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 235
lr: 0.0001
               evaluation reward: 1.45
episode: 236
               score: 1.0
                            memory length: 42663
                                                    epsilon: 1.0
                                                                    steps: 150
lr: 0.0001
               evaluation reward: 1.42
               score: 2.0
                            memory length: 42881
episode: 237
                                                    epsilon: 1.0
                                                                    steps: 218
               evaluation reward: 1.44
lr: 0.0001
episode: 238
               score: 0.0
                            memory length: 43004
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.44
                                                    epsilon: 1.0
                                                                    steps: 168
episode: 239
               score: 1.0
                            memory length: 43172
               evaluation reward: 1.42
lr: 0.0001
episode: 240
               score: 0.0
                            memory length: 43295
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.42
               score: 0.0
                            memory length: 43418
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 241
lr: 0.0001
               evaluation reward: 1.42
episode: 242
               score: 0.0
                            memory length: 43541
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.41
episode: 243
               score: 3.0
                            memory length: 43767
                                                    epsilon: 1.0
                                                                    steps: 226
lr: 0.0001
               evaluation reward: 1.43
               score: 3.0
                            memory length: 44011
episode: 244
                                                    epsilon: 1.0
                                                                    steps: 244
lr: 0.0001
               evaluation reward: 1.46
                                                                    steps: 123
episode: 245
               score: 0.0
                            memory length: 44134
                                                    epsilon: 1.0
lr: 0.0001
               evaluation reward: 1.44
episode: 246
               score: 2.0
                            memory length: 44353
                                                    epsilon: 1.0
                                                                    steps: 219
               evaluation reward: 1.43
lr: 0.0001
episode: 247
               score: 0.0
                            memory length: 44475
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.43
               score: 1.0
                            memory length: 44626
episode: 248
                                                    epsilon: 1.0
                                                                    steps: 151
lr: 0.0001
               evaluation reward: 1.42
                            memory length: 44794
episode: 249
               score: 1.0
                                                    epsilon: 1.0
                                                                    steps: 168
lr: 0.0001
               evaluation reward: 1.39
                            memory length: 44965
                                                    epsilon: 1.0
                                                                    steps: 171
episode: 250
               score: 1.0
lr: 0.0001
               evaluation reward: 1.4
episode: 251
               score: 1.0
                            memory length: 45117
                                                    epsilon: 1.0
                                                                    steps: 152
lr: 0.0001
               evaluation reward: 1.37
               score: 1.0
                            memory length: 45268
                                                    epsilon: 1.0
                                                                    steps: 151
episode: 252
lr: 0.0001
               evaluation reward: 1.36
episode: 253
               score: 0.0
                            memory length: 45391
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.35
                            memory length: 45610
                                                    epsilon: 1.0
                                                                    steps: 219
episode: 254
               score: 2.0
lr: 0.0001
               evaluation reward: 1.37
                            memory length: 45761
                                                    epsilon: 1.0
                                                                    steps: 151
episode: 255
               score: 1.0
               evaluation reward: 1.36
lr: 0.0001
               score: 1.0
                            memory length: 45912
                                                    epsilon: 1.0
                                                                    steps: 151
episode: 256
lr: 0.0001
               evaluation reward: 1.35
episode: 257
               score: 1.0
                            memory length: 46063
                                                    epsilon: 1.0
                                                                    steps: 151
lr: 0.0001
               evaluation reward: 1.33
episode: 258
               score: 0.0
                            memory length: 46185
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.33
```

```
score: 0.0
                            memory length: 46308
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 259
lr: 0.0001
               evaluation reward: 1.33
episode: 260
               score: 1.0
                            memory length: 46478
                                                    epsilon: 1.0
                                                                    steps: 170
lr: 0.0001
               evaluation reward: 1.33
episode: 261
               score: 1.0
                            memory length: 46647
                                                    epsilon: 1.0
                                                                    steps: 169
               evaluation reward: 1.27
lr: 0.0001
episode: 262
               score: 1.0
                            memory length: 46797
                                                    epsilon: 1.0
                                                                    steps: 150
lr: 0.0001
               evaluation reward: 1.27
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 263
               score: 0.0
                            memory length: 46920
lr: 0.0001
               evaluation reward: 1.24
episode: 264
               score: 1.0
                            memory length: 47088
                                                    epsilon: 1.0
                                                                    steps: 168
lr: 0.0001
               evaluation reward: 1.25
               score: 2.0
                            memory length: 47286
                                                    epsilon: 1.0
                                                                    steps: 198
episode: 265
lr: 0.0001
               evaluation reward: 1.27
episode: 266
               score: 3.0
                            memory length: 47558
                                                    epsilon: 1.0
                                                                    steps: 272
lr: 0.0001
               evaluation reward: 1.29
episode: 267
               score: 0.0
                            memory length: 47680
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.27
                            memory length: 47977
episode: 268
               score: 4.0
                                                    epsilon: 1.0
                                                                    steps: 297
lr: 0.0001
               evaluation reward: 1.29
episode: 269
               score: 1.0
                            memory length: 48128
                                                    epsilon: 1.0
                                                                    steps: 151
lr: 0.0001
               evaluation reward: 1.29
episode: 270
               score: 0.0
                            memory length: 48250
                                                    epsilon: 1.0
                                                                    steps: 122
               evaluation reward: 1.29
lr: 0.0001
episode: 271
               score: 1.0
                            memory length: 48418
                                                    epsilon: 1.0
                                                                    steps: 168
lr: 0.0001
               evaluation reward: 1.3
               score: 0.0
                            memory length: 48540
episode: 272
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.3
                            memory length: 48722
episode: 273
               score: 2.0
                                                    epsilon: 1.0
                                                                    steps: 182
lr: 0.0001
               evaluation reward: 1.3
                            memory length: 48953
                                                    epsilon: 1.0
                                                                    steps: 231
episode: 274
               score: 3.0
lr: 0.0001
               evaluation reward: 1.33
episode: 275
               score: 1.0
                            memory length: 49103
                                                    epsilon: 1.0
                                                                    steps: 150
lr: 0.0001
               evaluation reward: 1.34
               score: 3.0
                            memory length: 49350
                                                    epsilon: 1.0
                                                                    steps: 247
episode: 276
lr: 0.0001
               evaluation reward: 1.37
episode: 277
               score: 0.0
                            memory length: 49473
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.36
                            memory length: 49671
                                                    epsilon: 1.0
                                                                    steps: 198
episode: 278
               score: 2.0
lr: 0.0001
               evaluation reward: 1.36
                            memory length: 49794
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 279
               score: 0.0
               evaluation reward: 1.36
lr: 0.0001
               score: 1.0
                            memory length: 49963
                                                    epsilon: 1.0
                                                                    steps: 169
episode: 280
lr: 0.0001
               evaluation reward: 1.35
episode: 281
               score: 4.0
                            memory length: 50249
                                                    epsilon: 1.0
                                                                    steps: 286
lr: 0.0001
               evaluation reward: 1.38
episode: 282
               score: 0.0
                            memory length: 50371
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.38
```

```
memory length: 50521
                                                    epsilon: 1.0
                                                                    steps: 150
episode: 283
               score: 1.0
lr: 0.0001
               evaluation reward: 1.38
episode: 284
               score: 0.0
                            memory length: 50644
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.36
episode: 285
               score: 2.0
                            memory length: 50842
                                                    epsilon: 1.0
                                                                    steps: 198
               evaluation reward: 1.36
lr: 0.0001
episode: 286
               score: 1.0
                            memory length: 50993
                                                    epsilon: 1.0
                                                                    steps: 151
lr: 0.0001
               evaluation reward: 1.37
                                                    epsilon: 1.0
                                                                    steps: 228
episode: 287
               score: 3.0
                            memory length: 51221
lr: 0.0001
               evaluation reward: 1.4
episode: 288
               score: 0.0
                            memory length: 51343
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.4
               score: 2.0
                            memory length: 51541
                                                    epsilon: 1.0
                                                                    steps: 198
episode: 289
lr: 0.0001
               evaluation reward: 1.39
episode: 290
               score: 0.0
                            memory length: 51664
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.37
episode: 291
               score: 0.0
                            memory length: 51786
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.35
                            memory length: 52029
episode: 292
               score: 3.0
                                                    epsilon: 1.0
                                                                    steps: 243
lr: 0.0001
               evaluation reward: 1.36
episode: 293
               score: 1.0
                            memory length: 52198
                                                    epsilon: 1.0
                                                                    steps: 169
lr: 0.0001
               evaluation reward: 1.36
episode: 294
               score: 0.0
                            memory length: 52321
                                                    epsilon: 1.0
                                                                    steps: 123
               evaluation reward: 1.32
lr: 0.0001
episode: 295
               score: 2.0
                            memory length: 52538
                                                    epsilon: 1.0
                                                                    steps: 217
lr: 0.0001
               evaluation reward: 1.34
               score: 0.0
                            memory length: 52661
episode: 296
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.34
episode: 297
               score: 1.0
                            memory length: 52830
                                                    epsilon: 1.0
                                                                    steps: 169
lr: 0.0001
               evaluation reward: 1.33
                            memory length: 53076
                                                    epsilon: 1.0
                                                                    steps: 246
episode: 298
               score: 3.0
lr: 0.0001
               evaluation reward: 1.34
episode: 299
               score: 0.0
                            memory length: 53198
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.33
               score: 2.0
                            memory length: 53414
                                                    epsilon: 1.0
                                                                    steps: 216
episode: 300
lr: 0.0001
               evaluation reward: 1.35
episode: 301
               score: 1.0
                            memory length: 53564
                                                    epsilon: 1.0
                                                                    steps: 150
lr: 0.0001
               evaluation reward: 1.33
                            memory length: 53811
                                                    epsilon: 1.0
                                                                    steps: 247
episode: 302
               score: 3.0
lr: 0.0001
               evaluation reward: 1.32
                            memory length: 53934
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 303
               score: 0.0
               evaluation reward: 1.27
lr: 0.0001
               score: 2.0
                            memory length: 54134
                                                    epsilon: 1.0
                                                                    steps: 200
episode: 304
lr: 0.0001
               evaluation reward: 1.28
episode: 305
               score: 3.0
                            memory length: 54385
                                                    epsilon: 1.0
                                                                    steps: 251
lr: 0.0001
               evaluation reward: 1.31
episode: 306
               score: 2.0
                            memory length: 54583
                                                    epsilon: 1.0
                                                                    steps: 198
lr: 0.0001
               evaluation reward: 1.33
```

```
score: 0.0
                            memory length: 54706
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 307
lr: 0.0001
               evaluation reward: 1.3
episode: 308
               score: 0.0
                            memory length: 54829
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.3
                            memory length: 54980
episode: 309
               score: 1.0
                                                    epsilon: 1.0
                                                                    steps: 151
lr: 0.0001
               evaluation reward: 1.29
episode: 310
               score: 1.0
                            memory length: 55131
                                                    epsilon: 1.0
                                                                    steps: 151
lr: 0.0001
               evaluation reward: 1.28
                                                    epsilon: 1.0
                                                                    steps: 153
episode: 311
               score: 1.0
                            memory length: 55284
               evaluation reward: 1.28
lr: 0.0001
episode: 312
               score: 1.0
                            memory length: 55453
                                                    epsilon: 1.0
                                                                    steps: 169
lr: 0.0001
               evaluation reward: 1.25
               score: 0.0
                            memory length: 55576
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 313
lr: 0.0001
               evaluation reward: 1.21
episode: 314
               score: 1.0
                            memory length: 55747
                                                    epsilon: 1.0
                                                                    steps: 171
lr: 0.0001
               evaluation reward: 1.21
episode: 315
               score: 2.0
                            memory length: 55945
                                                    epsilon: 1.0
                                                                    steps: 198
lr: 0.0001
               evaluation reward: 1.22
                            memory length: 56068
episode: 316
               score: 0.0
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.22
                                                                    steps: 215
episode: 317
               score: 2.0
                            memory length: 56283
                                                    epsilon: 1.0
lr: 0.0001
               evaluation reward: 1.23
episode: 318
               score: 2.0
                            memory length: 56481
                                                    epsilon: 1.0
                                                                    steps: 198
               evaluation reward: 1.25
lr: 0.0001
episode: 319
               score: 2.0
                            memory length: 56699
                                                    epsilon: 1.0
                                                                    steps: 218
lr: 0.0001
               evaluation reward: 1.25
               score: 5.0
                            memory length: 57026
episode: 320
                                                    epsilon: 1.0
                                                                    steps: 327
lr: 0.0001
               evaluation reward: 1.27
                            memory length: 57224
episode: 321
               score: 2.0
                                                    epsilon: 1.0
                                                                    steps: 198
lr: 0.0001
               evaluation reward: 1.28
                            memory length: 57491
                                                    epsilon: 1.0
                                                                    steps: 267
episode: 322
               score: 3.0
lr: 0.0001
               evaluation reward: 1.29
episode: 323
               score: 5.0
                            memory length: 57780
                                                    epsilon: 1.0
                                                                    steps: 289
lr: 0.0001
               evaluation reward: 1.33
               score: 1.0
                            memory length: 57930
                                                    epsilon: 1.0
                                                                    steps: 150
episode: 324
lr: 0.0001
               evaluation reward: 1.31
episode: 325
               score: 2.0
                            memory length: 58128
                                                    epsilon: 1.0
                                                                    steps: 198
lr: 0.0001
               evaluation reward: 1.32
                            memory length: 58250
                                                    epsilon: 1.0
                                                                    steps: 122
episode: 326
               score: 0.0
lr: 0.0001
               evaluation reward: 1.29
                            memory length: 58403
                                                    epsilon: 1.0
                                                                    steps: 153
episode: 327
               score: 1.0
               evaluation reward: 1.28
lr: 0.0001
               score: 2.0
                            memory length: 58600
                                                    epsilon: 1.0
                                                                    steps: 197
episode: 328
lr: 0.0001
               evaluation reward: 1.3
episode: 329
               score: 0.0
                            memory length: 58722
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.28
episode: 330
               score: 3.0
                            memory length: 58988
                                                    epsilon: 1.0
                                                                    steps: 266
lr: 0.0001
               evaluation reward: 1.29
```

```
memory length: 59111
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 331
               score: 0.0
lr: 0.0001
               evaluation reward: 1.28
episode: 332
               score: 1.0
                            memory length: 59280
                                                    epsilon: 1.0
                                                                    steps: 169
lr: 0.0001
               evaluation reward: 1.28
               score: 0.0
                            memory length: 59403
episode: 333
                                                    epsilon: 1.0
                                                                    steps: 123
               evaluation reward: 1.26
lr: 0.0001
episode: 334
               score: 1.0
                            memory length: 59555
                                                    epsilon: 1.0
                                                                    steps: 152
lr: 0.0001
               evaluation reward: 1.24
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 335
               score: 0.0
                            memory length: 59678
lr: 0.0001
               evaluation reward: 1.24
episode: 336
               score: 3.0
                            memory length: 59925
                                                    epsilon: 1.0
                                                                    steps: 247
lr: 0.0001
               evaluation reward: 1.26
               score: 0.0
                            memory length: 60048
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 337
lr: 0.0001
               evaluation reward: 1.24
episode: 338
               score: 1.0
                            memory length: 60216
                                                    epsilon: 1.0
                                                                    steps: 168
               evaluation reward: 1.25
lr: 0.0001
episode: 339
               score: 1.0
                            memory length: 60388
                                                    epsilon: 1.0
                                                                    steps: 172
lr: 0.0001
               evaluation reward: 1.25
                            memory length: 60682
episode: 340
               score: 4.0
                                                    epsilon: 1.0
                                                                    steps: 294
lr: 0.0001
               evaluation reward: 1.29
episode: 341
               score: 2.0
                            memory length: 60882
                                                    epsilon: 1.0
                                                                    steps: 200
lr: 0.0001
               evaluation reward: 1.31
episode: 342
               score: 2.0
                            memory length: 61068
                                                    epsilon: 1.0
                                                                    steps: 186
               evaluation reward: 1.33
lr: 0.0001
episode: 343
               score: 0.0
                            memory length: 61190
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.3
               score: 1.0
                            memory length: 61362
episode: 344
                                                    epsilon: 1.0
                                                                    steps: 172
lr: 0.0001
               evaluation reward: 1.28
episode: 345
               score: 0.0
                            memory length: 61484
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.28
                            memory length: 61653
                                                    epsilon: 1.0
                                                                    steps: 169
episode: 346
               score: 1.0
lr: 0.0001
               evaluation reward: 1.27
episode: 347
               score: 0.0
                            memory length: 61776
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.27
               score: 0.0
                            memory length: 61899
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 348
lr: 0.0001
               evaluation reward: 1.26
episode: 349
               score: 0.0
                            memory length: 62021
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.25
                            memory length: 62218
                                                    epsilon: 1.0
                                                                    steps: 197
episode: 350
               score: 2.0
lr: 0.0001
               evaluation reward: 1.26
                            memory length: 62341
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 351
               score: 0.0
               evaluation reward: 1.25
lr: 0.0001
                            memory length: 62463
                                                    epsilon: 1.0
                                                                    steps: 122
episode: 352
               score: 0.0
lr: 0.0001
               evaluation reward: 1.24
episode: 353
               score: 0.0
                            memory length: 62585
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.24
episode: 354
               score: 2.0
                            memory length: 62783
                                                    epsilon: 1.0
                                                                    steps: 198
lr: 0.0001
               evaluation reward: 1.24
```

```
score: 3.0
                            memory length: 63017
                                                    epsilon: 1.0
                                                                    steps: 234
episode: 355
lr: 0.0001
               evaluation reward: 1.26
episode: 356
               score: 2.0
                            memory length: 63215
                                                    epsilon: 1.0
                                                                    steps: 198
lr: 0.0001
               evaluation reward: 1.27
episode: 357
               score: 3.0
                            memory length: 63444
                                                    epsilon: 1.0
                                                                    steps: 229
               evaluation reward: 1.29
lr: 0.0001
episode: 358
               score: 0.0
                            memory length: 63566
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.29
                                                    epsilon: 1.0
                                                                    steps: 198
episode: 359
               score: 2.0
                            memory length: 63764
lr: 0.0001
               evaluation reward: 1.31
episode: 360
               score: 4.0
                            memory length: 64081
                                                    epsilon: 1.0
                                                                    steps: 317
lr: 0.0001
               evaluation reward: 1.34
               score: 2.0
                            memory length: 64299
                                                    epsilon: 1.0
                                                                    steps: 218
episode: 361
lr: 0.0001
               evaluation reward: 1.35
episode: 362
               score: 1.0
                            memory length: 64469
                                                    epsilon: 1.0
                                                                    steps: 170
lr: 0.0001
               evaluation reward: 1.35
episode: 363
               score: 1.0
                            memory length: 64619
                                                    epsilon: 1.0
                                                                    steps: 150
lr: 0.0001
               evaluation reward: 1.36
                            memory length: 64742
episode: 364
               score: 0.0
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.35
episode: 365
               score: 1.0
                            memory length: 64910
                                                    epsilon: 1.0
                                                                    steps: 168
lr: 0.0001
               evaluation reward: 1.34
episode: 366
               score: 0.0
                            memory length: 65033
                                                    epsilon: 1.0
                                                                    steps: 123
               evaluation reward: 1.31
lr: 0.0001
episode: 367
               score: 2.0
                            memory length: 65253
                                                    epsilon: 1.0
                                                                    steps: 220
lr: 0.0001
               evaluation reward: 1.33
               score: 2.0
                            memory length: 65473
episode: 368
                                                    epsilon: 1.0
                                                                    steps: 220
lr: 0.0001
               evaluation reward: 1.31
episode: 369
               score: 1.0
                            memory length: 65644
                                                    epsilon: 1.0
                                                                    steps: 171
lr: 0.0001
               evaluation reward: 1.31
                            memory length: 65796
                                                    epsilon: 1.0
                                                                    steps: 152
episode: 370
               score: 1.0
lr: 0.0001
               evaluation reward: 1.32
episode: 371
               score: 1.0
                            memory length: 65968
                                                    epsilon: 1.0
                                                                    steps: 172
lr: 0.0001
               evaluation reward: 1.32
               score: 1.0
                            memory length: 66137
                                                    epsilon: 1.0
                                                                    steps: 169
episode: 372
lr: 0.0001
               evaluation reward: 1.33
episode: 373
               score: 1.0
                            memory length: 66306
                                                    epsilon: 1.0
                                                                    steps: 169
lr: 0.0001
               evaluation reward: 1.32
                             memory length: 66706
                                                     epsilon: 1.0
                                                                     steps: 400
episode: 374
               score: 10.0
lr: 0.0001
               evaluation reward: 1.39
               score: 0.0
                            memory length: 66828
                                                    epsilon: 1.0
                                                                    steps: 122
episode: 375
               evaluation reward: 1.38
lr: 0.0001
               score: 3.0
                            memory length: 67074
                                                    epsilon: 1.0
                                                                    steps: 246
episode: 376
lr: 0.0001
               evaluation reward: 1.38
episode: 377
               score: 4.0
                            memory length: 67369
                                                    epsilon: 1.0
                                                                    steps: 295
lr: 0.0001
               evaluation reward: 1.42
episode: 378
               score: 2.0
                            memory length: 67585
                                                    epsilon: 1.0
                                                                    steps: 216
lr: 0.0001
               evaluation reward: 1.42
```

```
score: 7.0
                            memory length: 67887
                                                    epsilon: 1.0
                                                                    steps: 302
episode: 379
lr: 0.0001
               evaluation reward: 1.49
episode: 380
               score: 1.0
                            memory length: 68038
                                                    epsilon: 1.0
                                                                    steps: 151
lr: 0.0001
               evaluation reward: 1.49
               score: 2.0
episode: 381
                            memory length: 68256
                                                    epsilon: 1.0
                                                                    steps: 218
               evaluation reward: 1.47
lr: 0.0001
episode: 382
               score: 4.0
                            memory length: 68534
                                                    epsilon: 1.0
                                                                    steps: 278
lr: 0.0001
               evaluation reward: 1.51
                                                    epsilon: 1.0
                                                                    steps: 169
episode: 383
               score: 1.0
                            memory length: 68703
lr: 0.0001
               evaluation reward: 1.51
episode: 384
               score: 0.0
                            memory length: 68825
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.51
               score: 5.0
                            memory length: 69182
                                                    epsilon: 1.0
                                                                    steps: 357
episode: 385
lr: 0.0001
               evaluation reward: 1.54
episode: 386
               score: 3.0
                            memory length: 69427
                                                    epsilon: 1.0
                                                                    steps: 245
               evaluation reward: 1.56
lr: 0.0001
episode: 387
               score: 2.0
                            memory length: 69624
                                                    epsilon: 1.0
                                                                    steps: 197
lr: 0.0001
               evaluation reward: 1.55
                            memory length: 69747
episode: 388
               score: 0.0
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.55
                                                                    steps: 246
episode: 389
               score: 3.0
                            memory length: 69993
                                                    epsilon: 1.0
lr: 0.0001
               evaluation reward: 1.56
episode: 390
               score: 2.0
                            memory length: 70193
                                                    epsilon: 1.0
                                                                    steps: 200
               evaluation reward: 1.58
lr: 0.0001
episode: 391
               score: 0.0
                            memory length: 70316
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.58
               score: 1.0
                            memory length: 70486
episode: 392
                                                    epsilon: 1.0
                                                                    steps: 170
lr: 0.0001
               evaluation reward: 1.56
                            memory length: 70704
episode: 393
               score: 2.0
                                                    epsilon: 1.0
                                                                    steps: 218
lr: 0.0001
               evaluation reward: 1.57
                            memory length: 70922
                                                    epsilon: 1.0
                                                                    steps: 218
episode: 394
               score: 2.0
lr: 0.0001
               evaluation reward: 1.59
episode: 395
               score: 0.0
                            memory length: 71045
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.57
               score: 0.0
                            memory length: 71168
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 396
lr: 0.0001
               evaluation reward: 1.57
episode: 397
               score: 0.0
                            memory length: 71291
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.56
                            memory length: 71460
                                                    epsilon: 1.0
                                                                    steps: 169
episode: 398
               score: 1.0
lr: 0.0001
               evaluation reward: 1.54
               score: 2.0
                            memory length: 71676
                                                    epsilon: 1.0
                                                                    steps: 216
episode: 399
               evaluation reward: 1.56
lr: 0.0001
               score: 2.0
                            memory length: 71874
                                                    epsilon: 1.0
                                                                    steps: 198
episode: 400
lr: 0.0001
               evaluation reward: 1.56
episode: 401
               score: 2.0
                            memory length: 72071
                                                    epsilon: 1.0
                                                                    steps: 197
lr: 0.0001
               evaluation reward: 1.57
episode: 402
               score: 0.0
                            memory length: 72194
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.54
```

```
score: 3.0
                            memory length: 72457
                                                    epsilon: 1.0
                                                                    steps: 263
episode: 403
lr: 0.0001
               evaluation reward: 1.57
episode: 404
               score: 3.0
                            memory length: 72702
                                                    epsilon: 1.0
                                                                    steps: 245
lr: 0.0001
               evaluation reward: 1.58
episode: 405
               score: 0.0
                            memory length: 72825
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.55
episode: 406
               score: 2.0
                            memory length: 73023
                                                    epsilon: 1.0
                                                                    steps: 198
lr: 0.0001
               evaluation reward: 1.55
                                                    epsilon: 1.0
                                                                    steps: 170
episode: 407
               score: 1.0
                            memory length: 73193
               evaluation reward: 1.56
lr: 0.0001
episode: 408
               score: 4.0
                            memory length: 73488
                                                    epsilon: 1.0
                                                                    steps: 295
lr: 0.0001
               evaluation reward: 1.6
               score: 3.0
                            memory length: 73716
                                                    epsilon: 1.0
                                                                    steps: 228
episode: 409
lr: 0.0001
               evaluation reward: 1.62
episode: 410
               score: 1.0
                            memory length: 73884
                                                    epsilon: 1.0
                                                                    steps: 168
lr: 0.0001
               evaluation reward: 1.62
episode: 411
               score: 2.0
                            memory length: 74101
                                                    epsilon: 1.0
                                                                    steps: 217
lr: 0.0001
               evaluation reward: 1.63
               score: 2.0
                            memory length: 74317
episode: 412
                                                    epsilon: 1.0
                                                                    steps: 216
lr: 0.0001
               evaluation reward: 1.64
episode: 413
               score: 5.0
                            memory length: 74664
                                                    epsilon: 1.0
                                                                    steps: 347
lr: 0.0001
               evaluation reward: 1.69
episode: 414
               score: 1.0
                            memory length: 74833
                                                    epsilon: 1.0
                                                                    steps: 169
               evaluation reward: 1.69
lr: 0.0001
episode: 415
               score: 2.0
                            memory length: 75017
                                                    epsilon: 1.0
                                                                    steps: 184
lr: 0.0001
               evaluation reward: 1.69
               score: 0.0
                            memory length: 75140
episode: 416
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.69
                            memory length: 75321
episode: 417
               score: 2.0
                                                    epsilon: 1.0
                                                                    steps: 181
lr: 0.0001
               evaluation reward: 1.69
                            memory length: 75444
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 418
               score: 0.0
lr: 0.0001
               evaluation reward: 1.67
episode: 419
               score: 0.0
                            memory length: 75567
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.65
               score: 0.0
                            memory length: 75690
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 420
lr: 0.0001
               evaluation reward: 1.6
episode: 421
               score: 1.0
                            memory length: 75842
                                                    epsilon: 1.0
                                                                    steps: 152
lr: 0.0001
               evaluation reward: 1.59
                            memory length: 75964
                                                    epsilon: 1.0
                                                                    steps: 122
episode: 422
               score: 0.0
lr: 0.0001
               evaluation reward: 1.56
               score: 2.0
                            memory length: 76162
                                                    epsilon: 1.0
                                                                    steps: 198
episode: 423
               evaluation reward: 1.53
lr: 0.0001
               score: 2.0
                            memory length: 76379
                                                    epsilon: 1.0
                                                                    steps: 217
episode: 424
lr: 0.0001
               evaluation reward: 1.54
episode: 425
               score: 1.0
                            memory length: 76548
                                                    epsilon: 1.0
                                                                    steps: 169
lr: 0.0001
               evaluation reward: 1.53
episode: 426
               score: 1.0
                            memory length: 76699
                                                    epsilon: 1.0
                                                                    steps: 151
lr: 0.0001
               evaluation reward: 1.54
```

```
score: 3.0
                            memory length: 76946
                                                    epsilon: 1.0
                                                                    steps: 247
episode: 427
lr: 0.0001
               evaluation reward: 1.56
episode: 428
               score: 3.0
                            memory length: 77192
                                                    epsilon: 1.0
                                                                    steps: 246
lr: 0.0001
               evaluation reward: 1.57
               score: 0.0
episode: 429
                            memory length: 77314
                                                    epsilon: 1.0
                                                                    steps: 122
               evaluation reward: 1.57
lr: 0.0001
episode: 430
               score: 2.0
                            memory length: 77512
                                                    epsilon: 1.0
                                                                    steps: 198
lr: 0.0001
               evaluation reward: 1.56
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 431
               score: 0.0
                            memory length: 77635
               evaluation reward: 1.56
lr: 0.0001
episode: 432
               score: 4.0
                            memory length: 77892
                                                    epsilon: 1.0
                                                                    steps: 257
lr: 0.0001
               evaluation reward: 1.59
               score: 2.0
                            memory length: 78090
                                                    epsilon: 1.0
                                                                    steps: 198
episode: 433
lr: 0.0001
               evaluation reward: 1.61
episode: 434
               score: 0.0
                            memory length: 78213
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.6
episode: 435
               score: 0.0
                            memory length: 78336
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.6
                            memory length: 78459
episode: 436
               score: 0.0
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.57
episode: 437
               score: 1.0
                            memory length: 78611
                                                    epsilon: 1.0
                                                                    steps: 152
lr: 0.0001
               evaluation reward: 1.58
episode: 438
               score: 2.0
                            memory length: 78832
                                                    epsilon: 1.0
                                                                    steps: 221
               evaluation reward: 1.59
lr: 0.0001
episode: 439
               score: 1.0
                            memory length: 79001
                                                    epsilon: 1.0
                                                                    steps: 169
lr: 0.0001
               evaluation reward: 1.59
               score: 0.0
                            memory length: 79124
episode: 440
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.55
                            memory length: 79246
episode: 441
               score: 0.0
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.53
                            memory length: 79369
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 442
               score: 0.0
lr: 0.0001
               evaluation reward: 1.51
episode: 443
               score: 2.0
                            memory length: 79589
                                                    epsilon: 1.0
                                                                    steps: 220
lr: 0.0001
               evaluation reward: 1.53
               score: 3.0
                            memory length: 79832
                                                    epsilon: 1.0
                                                                    steps: 243
episode: 444
lr: 0.0001
               evaluation reward: 1.55
episode: 445
               score: 2.0
                            memory length: 80030
                                                    epsilon: 1.0
                                                                    steps: 198
lr: 0.0001
               evaluation reward: 1.57
                            memory length: 80199
                                                    epsilon: 1.0
                                                                    steps: 169
episode: 446
               score: 1.0
lr: 0.0001
               evaluation reward: 1.57
                            memory length: 80497
                                                    epsilon: 1.0
                                                                    steps: 298
episode: 447
               score: 4.0
               evaluation reward: 1.61
lr: 0.0001
               score: 3.0
                            memory length: 80725
                                                    epsilon: 1.0
                                                                    steps: 228
episode: 448
lr: 0.0001
               evaluation reward: 1.64
episode: 449
               score: 2.0
                            memory length: 80922
                                                    epsilon: 1.0
                                                                    steps: 197
lr: 0.0001
               evaluation reward: 1.66
episode: 450
               score: 1.0
                            memory length: 81072
                                                    epsilon: 1.0
                                                                    steps: 150
lr: 0.0001
               evaluation reward: 1.65
```

```
score: 0.0
                            memory length: 81195
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 451
lr: 0.0001
               evaluation reward: 1.65
episode: 452
               score: 2.0
                            memory length: 81393
                                                    epsilon: 1.0
                                                                    steps: 198
lr: 0.0001
               evaluation reward: 1.67
               score: 0.0
episode: 453
                            memory length: 81516
                                                    epsilon: 1.0
                                                                    steps: 123
               evaluation reward: 1.67
lr: 0.0001
episode: 454
               score: 4.0
                            memory length: 81832
                                                    epsilon: 1.0
                                                                    steps: 316
lr: 0.0001
               evaluation reward: 1.69
                            memory length: 81983
                                                    epsilon: 1.0
                                                                    steps: 151
episode: 455
               score: 1.0
               evaluation reward: 1.67
lr: 0.0001
episode: 456
               score: 0.0
                            memory length: 82106
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.65
               score: 0.0
                            memory length: 82229
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 457
lr: 0.0001
               evaluation reward: 1.62
episode: 458
               score: 0.0
                            memory length: 82352
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.62
episode: 459
               score: 2.0
                            memory length: 82550
                                                    epsilon: 1.0
                                                                    steps: 198
lr: 0.0001
               evaluation reward: 1.62
                            memory length: 82672
episode: 460
               score: 0.0
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.58
                                                                    steps: 311
episode: 461
               score: 4.0
                            memory length: 82983
                                                    epsilon: 1.0
lr: 0.0001
               evaluation reward: 1.6
episode: 462
               score: 1.0
                            memory length: 83155
                                                    epsilon: 1.0
                                                                    steps: 172
               evaluation reward: 1.6
lr: 0.0001
episode: 463
               score: 1.0
                            memory length: 83324
                                                    epsilon: 1.0
                                                                    steps: 169
lr: 0.0001
               evaluation reward: 1.6
               score: 0.0
                            memory length: 83447
episode: 464
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.6
episode: 465
               score: 2.0
                            memory length: 83645
                                                    epsilon: 1.0
                                                                    steps: 198
lr: 0.0001
               evaluation reward: 1.61
                            memory length: 83796
                                                    epsilon: 1.0
                                                                    steps: 151
episode: 466
               score: 1.0
lr: 0.0001
               evaluation reward: 1.62
episode: 467
               score: 2.0
                            memory length: 83994
                                                    epsilon: 1.0
                                                                    steps: 198
lr: 0.0001
               evaluation reward: 1.62
               score: 1.0
                            memory length: 84164
                                                    epsilon: 1.0
                                                                    steps: 170
episode: 468
lr: 0.0001
               evaluation reward: 1.61
episode: 469
               score: 1.0
                            memory length: 84335
                                                    epsilon: 1.0
                                                                    steps: 171
lr: 0.0001
               evaluation reward: 1.61
                            memory length: 84581
                                                    epsilon: 1.0
episode: 470
               score: 3.0
                                                                    steps: 246
lr: 0.0001
               evaluation reward: 1.63
                            memory length: 84825
                                                    epsilon: 1.0
                                                                    steps: 244
episode: 471
               score: 3.0
               evaluation reward: 1.65
lr: 0.0001
               score: 3.0
                            memory length: 85053
                                                    epsilon: 1.0
                                                                    steps: 228
episode: 472
lr: 0.0001
               evaluation reward: 1.67
episode: 473
               score: 6.0
                            memory length: 85395
                                                    epsilon: 1.0
                                                                    steps: 342
lr: 0.0001
               evaluation reward: 1.72
episode: 474
               score: 2.0
                            memory length: 85613
                                                    epsilon: 1.0
                                                                    steps: 218
lr: 0.0001
               evaluation reward: 1.64
```

```
score: 4.0
                            memory length: 85890
                                                    epsilon: 1.0
                                                                    steps: 277
episode: 475
lr: 0.0001
               evaluation reward: 1.68
episode: 476
               score: 0.0
                            memory length: 86013
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.65
                            memory length: 86135
episode: 477
               score: 0.0
                                                    epsilon: 1.0
                                                                    steps: 122
               evaluation reward: 1.61
lr: 0.0001
episode: 478
               score: 0.0
                            memory length: 86258
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.59
                                                    epsilon: 1.0
                                                                    steps: 198
episode: 479
               score: 2.0
                            memory length: 86456
               evaluation reward: 1.54
lr: 0.0001
episode: 480
               score: 1.0
                            memory length: 86625
                                                    epsilon: 1.0
                                                                    steps: 169
lr: 0.0001
               evaluation reward: 1.54
               score: 3.0
                            memory length: 86853
                                                    epsilon: 1.0
                                                                    steps: 228
episode: 481
lr: 0.0001
               evaluation reward: 1.55
episode: 482
               score: 3.0
                            memory length: 87079
                                                    epsilon: 1.0
                                                                    steps: 226
               evaluation reward: 1.54
lr: 0.0001
episode: 483
               score: 0.0
                            memory length: 87201
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.53
                            memory length: 87426
episode: 484
               score: 3.0
                                                    epsilon: 1.0
                                                                    steps: 225
lr: 0.0001
               evaluation reward: 1.56
                                                                    steps: 122
episode: 485
               score: 0.0
                            memory length: 87548
                                                    epsilon: 1.0
lr: 0.0001
               evaluation reward: 1.51
episode: 486
               score: 3.0
                            memory length: 87775
                                                    epsilon: 1.0
                                                                    steps: 227
               evaluation reward: 1.51
lr: 0.0001
episode: 487
               score: 1.0
                            memory length: 87926
                                                    epsilon: 1.0
                                                                    steps: 151
lr: 0.0001
               evaluation reward: 1.5
               score: 1.0
                            memory length: 88077
episode: 488
                                                    epsilon: 1.0
                                                                    steps: 151
lr: 0.0001
               evaluation reward: 1.51
episode: 489
               score: 3.0
                            memory length: 88320
                                                    epsilon: 1.0
                                                                    steps: 243
lr: 0.0001
               evaluation reward: 1.51
                            memory length: 88489
                                                    epsilon: 1.0
                                                                    steps: 169
episode: 490
               score: 1.0
lr: 0.0001
               evaluation reward: 1.5
episode: 491
               score: 0.0
                            memory length: 88612
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.5
               score: 2.0
                            memory length: 88812
                                                    epsilon: 1.0
                                                                    steps: 200
episode: 492
lr: 0.0001
               evaluation reward: 1.51
episode: 493
               score: 1.0
                            memory length: 88963
                                                    epsilon: 1.0
                                                                    steps: 151
lr: 0.0001
               evaluation reward: 1.5
                            memory length: 89161
                                                    epsilon: 1.0
                                                                    steps: 198
episode: 494
               score: 2.0
lr: 0.0001
               evaluation reward: 1.5
                            memory length: 89332
                                                    epsilon: 1.0
                                                                    steps: 171
episode: 495
               score: 1.0
               evaluation reward: 1.51
lr: 0.0001
               score: 0.0
                            memory length: 89455
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 496
lr: 0.0001
               evaluation reward: 1.51
episode: 497
               score: 0.0
                            memory length: 89578
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.51
episode: 498
               score: 3.0
                            memory length: 89845
                                                    epsilon: 1.0
                                                                    steps: 267
lr: 0.0001
               evaluation reward: 1.53
```

```
score: 5.0
                            memory length: 90164
                                                    epsilon: 1.0
                                                                    steps: 319
episode: 499
lr: 0.0001
               evaluation reward: 1.56
episode: 500
               score: 0.0
                            memory length: 90287
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.54
                            memory length: 90503
episode: 501
               score: 2.0
                                                    epsilon: 1.0
                                                                    steps: 216
               evaluation reward: 1.54
lr: 0.0001
episode: 502
               score: 4.0
                            memory length: 90778
                                                    epsilon: 1.0
                                                                    steps: 275
lr: 0.0001
               evaluation reward: 1.58
                                                    epsilon: 1.0
                                                                    steps: 169
episode: 503
               score: 1.0
                            memory length: 90947
               evaluation reward: 1.56
lr: 0.0001
episode: 504
               score: 1.0
                            memory length: 91117
                                                    epsilon: 1.0
                                                                    steps: 170
lr: 0.0001
               evaluation reward: 1.54
               score: 2.0
                            memory length: 91314
                                                    epsilon: 1.0
                                                                    steps: 197
episode: 505
lr: 0.0001
               evaluation reward: 1.56
episode: 506
               score: 0.0
                            memory length: 91437
                                                    epsilon: 1.0
                                                                    steps: 123
               evaluation reward: 1.54
lr: 0.0001
episode: 507
               score: 1.0
                            memory length: 91588
                                                    epsilon: 1.0
                                                                    steps: 151
lr: 0.0001
               evaluation reward: 1.54
                            memory length: 91757
episode: 508
               score: 1.0
                                                    epsilon: 1.0
                                                                    steps: 169
lr: 0.0001
               evaluation reward: 1.51
                            memory length: 91880
episode: 509
               score: 0.0
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.48
episode: 510
               score: 0.0
                            memory length: 92003
                                                    epsilon: 1.0
                                                                    steps: 123
               evaluation reward: 1.47
lr: 0.0001
episode: 511
               score: 3.0
                            memory length: 92252
                                                    epsilon: 1.0
                                                                    steps: 249
lr: 0.0001
               evaluation reward: 1.48
               score: 4.0
                            memory length: 92526
                                                                    steps: 274
episode: 512
                                                    epsilon: 1.0
lr: 0.0001
               evaluation reward: 1.5
episode: 513
               score: 1.0
                            memory length: 92698
                                                    epsilon: 1.0
                                                                    steps: 172
lr: 0.0001
               evaluation reward: 1.46
                            memory length: 92821
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 514
               score: 0.0
lr: 0.0001
               evaluation reward: 1.45
episode: 515
               score: 0.0
                            memory length: 92944
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.43
               score: 4.0
                            memory length: 93222
                                                    epsilon: 1.0
                                                                    steps: 278
episode: 516
lr: 0.0001
               evaluation reward: 1.47
episode: 517
               score: 4.0
                            memory length: 93498
                                                    epsilon: 1.0
                                                                    steps: 276
lr: 0.0001
               evaluation reward: 1.49
                            memory length: 93621
                                                    epsilon: 1.0
episode: 518
               score: 0.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.49
                            memory length: 93790
                                                    epsilon: 1.0
                                                                    steps: 169
episode: 519
               score: 1.0
               evaluation reward: 1.5
lr: 0.0001
               score: 2.0
                            memory length: 93970
                                                    epsilon: 1.0
                                                                    steps: 180
episode: 520
lr: 0.0001
               evaluation reward: 1.52
episode: 521
               score: 4.0
                            memory length: 94266
                                                    epsilon: 1.0
                                                                    steps: 296
lr: 0.0001
               evaluation reward: 1.55
episode: 522
               score: 1.0
                            memory length: 94436
                                                    epsilon: 1.0
                                                                    steps: 170
lr: 0.0001
               evaluation reward: 1.56
```

```
score: 0.0
                            memory length: 94559
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 523
lr: 0.0001
               evaluation reward: 1.54
episode: 524
               score: 1.0
                            memory length: 94710
                                                    epsilon: 1.0
                                                                    steps: 151
lr: 0.0001
               evaluation reward: 1.53
episode: 525
               score: 1.0
                            memory length: 94879
                                                    epsilon: 1.0
                                                                    steps: 169
               evaluation reward: 1.53
lr: 0.0001
episode: 526
               score: 0.0
                            memory length: 95002
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.52
                            memory length: 95125
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 527
               score: 0.0
               evaluation reward: 1.49
lr: 0.0001
episode: 528
               score: 0.0
                            memory length: 95247
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.46
               score: 0.0
                            memory length: 95370
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 529
lr: 0.0001
               evaluation reward: 1.46
episode: 530
               score: 1.0
                            memory length: 95541
                                                    epsilon: 1.0
                                                                    steps: 171
               evaluation reward: 1.45
lr: 0.0001
episode: 531
               score: 3.0
                            memory length: 95773
                                                    epsilon: 1.0
                                                                    steps: 232
lr: 0.0001
               evaluation reward: 1.48
                            memory length: 95944
episode: 532
               score: 1.0
                                                    epsilon: 1.0
                                                                    steps: 171
lr: 0.0001
               evaluation reward: 1.45
                                                                    steps: 123
episode: 533
               score: 0.0
                            memory length: 96067
                                                    epsilon: 1.0
lr: 0.0001
               evaluation reward: 1.43
episode: 534
               score: 2.0
                            memory length: 96288
                                                    epsilon: 1.0
                                                                    steps: 221
               evaluation reward: 1.45
lr: 0.0001
episode: 535
               score: 1.0
                            memory length: 96439
                                                    epsilon: 1.0
                                                                    steps: 151
lr: 0.0001
               evaluation reward: 1.46
               score: 1.0
                            memory length: 96590
episode: 536
                                                    epsilon: 1.0
                                                                    steps: 151
lr: 0.0001
               evaluation reward: 1.47
                            memory length: 96713
episode: 537
               score: 0.0
                                                    epsilon: 1.0
                                                                    steps: 123
lr: 0.0001
               evaluation reward: 1.46
                            memory length: 96931
                                                    epsilon: 1.0
                                                                    steps: 218
episode: 538
               score: 2.0
lr: 0.0001
               evaluation reward: 1.46
episode: 539
               score: 2.0
                            memory length: 97128
                                                    epsilon: 1.0
                                                                    steps: 197
lr: 0.0001
               evaluation reward: 1.47
               score: 2.0
                            memory length: 97325
                                                    epsilon: 1.0
                                                                    steps: 197
episode: 540
lr: 0.0001
               evaluation reward: 1.49
episode: 541
               score: 1.0
                            memory length: 97493
                                                    epsilon: 1.0
                                                                    steps: 168
lr: 0.0001
               evaluation reward: 1.5
                            memory length: 97615
                                                    epsilon: 1.0
                                                                    steps: 122
episode: 542
               score: 0.0
lr: 0.0001
               evaluation reward: 1.5
                            memory length: 97834
                                                    epsilon: 1.0
                                                                    steps: 219
episode: 543
               score: 2.0
               evaluation reward: 1.5
lr: 0.0001
               score: 0.0
                            memory length: 97957
                                                    epsilon: 1.0
                                                                    steps: 123
episode: 544
lr: 0.0001
               evaluation reward: 1.47
episode: 545
               score: 3.0
                            memory length: 98206
                                                    epsilon: 1.0
                                                                    steps: 249
lr: 0.0001
               evaluation reward: 1.48
episode: 546
               score: 0.0
                            memory length: 98328
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.47
```

```
score: 2.0
                            memory length: 98546
                                                    epsilon: 1.0
episode: 547
                                                                    steps: 218
lr: 0.0001
               evaluation reward: 1.45
episode: 548
               score: 4.0
                            memory length: 98839
                                                    epsilon: 1.0
                                                                    steps: 293
lr: 0.0001
               evaluation reward: 1.46
episode: 549
               score: 2.0
                            memory length: 99021
                                                    epsilon: 1.0
                                                                    steps: 182
lr: 0.0001
               evaluation reward: 1.46
episode: 550
               score: 2.0
                            memory length: 99238
                                                    epsilon: 1.0
                                                                    steps: 217
lr: 0.0001
               evaluation reward: 1.47
                            memory length: 99360
episode: 551
               score: 0.0
                                                    epsilon: 1.0
                                                                    steps: 122
               evaluation reward: 1.47
lr: 0.0001
                            memory length: 99531
episode: 552
               score: 1.0
                                                    epsilon: 1.0
                                                                    steps: 171
lr: 0.0001
               evaluation reward: 1.46
               score: 0.0
episode: 553
                            memory length: 99653
                                                    epsilon: 1.0
                                                                    steps: 122
lr: 0.0001
               evaluation reward: 1.46
episode: 554
               score: 2.0
                            memory length: 99851
                                                    epsilon: 1.0
                                                                    steps: 198
lr: 0.0001
               evaluation reward: 1.44
/u/qilong/QA generator/CS444/mp5/memory.py:66: FutureWarning: The input object
```

/u/qilong/QA_generator/CS444/mp5/memory.py:66: FutureWarning: The input object of type 'Tensor' is an array-like implementing one of the corresponding protocols (`_array__`, `_array_interface__` or `_array_struct__`); but not a sequence (or 0-D). In the future, this object will be coerced as if it was first converted using `np.array(obj)`. To retain the old behaviour, you have to either modify the type 'Tensor', or assign to an empty array created with `np.empty(correct_shape, dtype=object)`.

sample = np.array(sample, dtype=object)

/u/qilong/QA_generator/CS444/mp5/agent_lstm.py:53: FutureWarning: The input object of type 'Tensor' is an array-like implementing one of the corresponding protocols (`_array__`, `_array_interface__` or `_array_struct__`); but not a sequence (or 0-D). In the future, this object will be coerced as if it was first converted using `np.array(obj)`. To retain the old behaviour, you have to either modify the type 'Tensor', or assign to an empty array created with `np.empty(correct_shape, dtype=object)`.

mini_batch = np.array(mini_batch, dtype=object).transpose()

```
memory length: 100081
                                                     epsilon: 0.9998376400000035
episode: 555
               score: 3.0
                             evaluation reward: 1.46
steps: 230
              lr: 0.0001
                            memory length: 100327
episode: 556
               score: 3.0
                                                     epsilon: 0.9993505600000141
steps: 246
              lr: 0.0001
                             evaluation reward: 1.49
episode: 557
               score: 3.0
                            memory length: 100576
                                                     epsilon: 0.9988575400000248
                             evaluation reward: 1.52
steps: 249
              lr: 0.0001
episode: 558
               score: 1.0
                            memory length: 100744
                                                     epsilon: 0.998524900000032
steps: 168
              lr: 0.0001
                             evaluation reward: 1.53
                            memory length: 100942
                                                     epsilon: 0.9981328600000405
episode: 559
               score: 2.0
steps: 198
              lr: 0.0001
                             evaluation reward: 1.53
                                                     epsilon: 0.9978893200000458
episode: 560
               score: 0.0
                            memory length: 101065
steps: 123
              lr: 0.0001
                             evaluation reward: 1.53
episode: 561
               score: 4.0
                            memory length: 101385
                                                     epsilon: 0.9972557200000596
steps: 320
              lr: 0.0001
                             evaluation reward: 1.53
episode: 562
               score: 0.0
                            memory length: 101507
                                                     epsilon: 0.9970141600000648
```

```
steps: 122
              lr: 0.0001
                              evaluation reward: 1.52
episode: 563
               score: 5.0
                             memory length: 101831
                                                      epsilon: 0.9963726400000787
steps: 324
                              evaluation reward: 1.56
              lr: 0.0001
               score: 2.0
episode: 564
                             memory length: 102028
                                                      epsilon: 0.9959825800000872
steps: 197
              lr: 0.0001
                              evaluation reward: 1.58
episode: 565
               score: 1.0
                             memory length: 102199
                                                      epsilon: 0.9956440000000946
steps: 171
              lr: 0.0001
                              evaluation reward: 1.57
episode: 566
               score: 0.0
                             memory length: 102321
                                                      epsilon: 0.9954024400000998
steps: 122
              lr: 0.0001
                              evaluation reward: 1.56
episode: 567
               score: 0.0
                             memory length: 102444
                                                      epsilon: 0.9951589000001051
steps: 123
              lr: 0.0001
                              evaluation reward: 1.54
episode: 568
               score: 1.0
                             memory length: 102597
                                                      epsilon: 0.9948559600001117
                              evaluation reward: 1.54
steps: 153
              lr: 0.0001
episode: 569
               score: 3.0
                             memory length: 102825
                                                      epsilon: 0.9944045200001215
steps: 228
              lr: 0.0001
                              evaluation reward: 1.56
episode: 570
               score: 3.0
                             memory length: 103069
                                                      epsilon: 0.993921400000132
steps: 244
              lr: 0.0001
                              evaluation reward: 1.56
                                                      epsilon: 0.9933967000001434
episode: 571
               score: 3.0
                             memory length: 103334
steps: 265
                              evaluation reward: 1.56
              lr: 0.0001
episode: 572
               score: 4.0
                             memory length: 103633
                                                      epsilon: 0.9928046800001562
                              evaluation reward: 1.57
steps: 299
              lr: 0.0001
episode: 573
               score: 1.0
                             memory length: 103802
                                                      epsilon: 0.9924700600001635
steps: 169
              lr: 0.0001
                              evaluation reward: 1.52
                             memory length: 103953
episode: 574
               score: 1.0
                                                      epsilon: 0.99217108000017
steps: 151
              lr: 0.0001
                              evaluation reward: 1.51
episode: 575
                             memory length: 104075
               score: 0.0
                                                      epsilon: 0.9919295200001752
                              evaluation reward: 1.47
steps: 122
              lr: 0.0001
episode: 576
               score: 2.0
                             memory length: 104296
                                                      epsilon: 0.9914919400001847
steps: 221
              lr: 0.0001
                              evaluation reward: 1.49
episode: 577
               score: 0.0
                             memory length: 104418
                                                      epsilon: 0.99125038000019
steps: 122
              lr: 0.0001
                              evaluation reward: 1.49
episode: 578
               score: 2.0
                             memory length: 104615
                                                      epsilon: 0.9908603200001984
steps: 197
              lr: 0.0001
                              evaluation reward: 1.51
episode: 579
               score: 3.0
                             memory length: 104860
                                                      epsilon: 0.990375220000209
steps: 245
              lr: 0.0001
                              evaluation reward: 1.52
episode: 580
               score: 1.0
                             memory length: 105029
                                                      epsilon: 0.9900406000002162
steps: 169
              lr: 0.0001
                              evaluation reward: 1.52
                             memory length: 105182
episode: 581
                                                      epsilon: 0.9897376600002228
               score: 1.0
steps: 153
              lr: 0.0001
                              evaluation reward: 1.5
episode: 582
               score: 1.0
                             memory length: 105333
                                                      epsilon: 0.9894386800002293
                              evaluation reward: 1.48
steps: 151
              lr: 0.0001
episode: 583
                             memory length: 105502
                                                      epsilon: 0.9891040600002365
               score: 1.0
                              evaluation reward: 1.49
steps: 169
              lr: 0.0001
episode: 584
               score: 2.0
                             memory length: 105717
                                                      epsilon: 0.9886783600002458
steps: 215
              lr: 0.0001
                              evaluation reward: 1.48
episode: 585
               score: 4.0
                             memory length: 106000
                                                      epsilon: 0.988118020000258
steps: 283
              lr: 0.0001
                              evaluation reward: 1.52
episode: 586
               score: 2.0
                             memory length: 106198
                                                      epsilon: 0.9877259800002665
```

```
steps: 198
              lr: 0.0001
                              evaluation reward: 1.51
episode: 587
               score: 1.0
                             memory length: 106366
                                                      epsilon: 0.9873933400002737
steps: 168
                              evaluation reward: 1.51
              lr: 0.0001
episode: 588
               score: 0.0
                             memory length: 106489
                                                      epsilon: 0.987149800000279
steps: 123
              lr: 0.0001
                              evaluation reward: 1.5
episode: 589
               score: 1.0
                             memory length: 106640
                                                      epsilon: 0.9868508200002855
steps: 151
              lr: 0.0001
                              evaluation reward: 1.48
episode: 590
               score: 2.0
                             memory length: 106840
                                                      epsilon: 0.986454820000294
steps: 200
              lr: 0.0001
                              evaluation reward: 1.49
episode: 591
               score: 2.0
                             memory length: 107037
                                                      epsilon: 0.9860647600003025
steps: 197
              lr: 0.0001
                              evaluation reward: 1.51
episode: 592
               score: 0.0
                             memory length: 107159
                                                      epsilon: 0.9858232000003078
                              evaluation reward: 1.49
steps: 122
              lr: 0.0001
episode: 593
               score: 0.0
                             memory length: 107282
                                                      epsilon: 0.985579660000313
steps: 123
              lr: 0.0001
                              evaluation reward: 1.48
episode: 594
               score: 0.0
                             memory length: 107405
                                                      epsilon: 0.9853361200003183
steps: 123
              lr: 0.0001
                              evaluation reward: 1.46
               score: 2.0
episode: 595
                             memory length: 107602
                                                      epsilon: 0.9849460600003268
                              evaluation reward: 1.47
steps: 197
              lr: 0.0001
episode: 596
               score: 2.0
                             memory length: 107782
                                                      epsilon: 0.9845896600003345
steps: 180
              lr: 0.0001
                              evaluation reward: 1.49
episode: 597
               score: 3.0
                             memory length: 108010
                                                      epsilon: 0.9841382200003443
steps: 228
              lr: 0.0001
                              evaluation reward: 1.52
episode: 598
               score: 1.0
                             memory length: 108161
                                                      epsilon: 0.9838392400003508
steps: 151
              lr: 0.0001
                              evaluation reward: 1.5
episode: 599
                             memory length: 108284
               score: 0.0
                                                      epsilon: 0.9835957000003561
                              evaluation reward: 1.45
steps: 123
              lr: 0.0001
episode: 600
               score: 2.0
                             memory length: 108482
                                                      epsilon: 0.9832036600003646
steps: 198
              lr: 0.0001
                              evaluation reward: 1.47
               score: 2.0
                             memory length: 108680
                                                      epsilon: 0.9828116200003731
episode: 601
steps: 198
              lr: 0.0001
                              evaluation reward: 1.47
episode: 602
               score: 1.0
                             memory length: 108851
                                                      epsilon: 0.9824730400003805
steps: 171
              lr: 0.0001
                              evaluation reward: 1.44
episode: 603
               score: 2.0
                             memory length: 109071
                                                      epsilon: 0.98203744000039
steps: 220
              lr: 0.0001
                              evaluation reward: 1.45
episode: 604
               score: 2.0
                             memory length: 109268
                                                      epsilon: 0.9816473800003984
steps: 197
              lr: 0.0001
                              evaluation reward: 1.46
                             memory length: 109465
episode: 605
               score: 2.0
                                                      epsilon: 0.9812573200004069
steps: 197
              lr: 0.0001
                              evaluation reward: 1.46
episode: 606
               score: 0.0
                             memory length: 109588
                                                      epsilon: 0.9810137800004122
                              evaluation reward: 1.46
steps: 123
              lr: 0.0001
                             memory length: 109806
episode: 607
               score: 2.0
                                                      epsilon: 0.9805821400004215
                              evaluation reward: 1.47
steps: 218
              lr: 0.0001
episode: 608
               score: 3.0
                             memory length: 110031
                                                      epsilon: 0.9801366400004312
steps: 225
              lr: 0.0001
                              evaluation reward: 1.49
episode: 609
               score: 2.0
                             memory length: 110230
                                                      epsilon: 0.9797426200004398
steps: 199
              lr: 0.0001
                              evaluation reward: 1.51
                             memory length: 110489
                                                      epsilon: 0.9792298000004509
episode: 610
               score: 4.0
```

```
evaluation reward: 1.55
steps: 259
              lr: 0.0001
episode: 611
               score: 2.0
                             memory length: 110671
                                                      epsilon: 0.9788694400004587
steps: 182
                              evaluation reward: 1.54
              lr: 0.0001
episode: 612
               score: 0.0
                             memory length: 110794
                                                      epsilon: 0.978625900000464
steps: 123
              lr: 0.0001
                              evaluation reward: 1.5
episode: 613
               score: 3.0
                             memory length: 111039
                                                      epsilon: 0.9781408000004745
steps: 245
              lr: 0.0001
                              evaluation reward: 1.52
                                                      epsilon: 0.9778972600004798
episode: 614
               score: 0.0
                             memory length: 111162
steps: 123
              lr: 0.0001
                              evaluation reward: 1.52
episode: 615
               score: 0.0
                             memory length: 111285
                                                      epsilon: 0.9776537200004851
steps: 123
              lr: 0.0001
                              evaluation reward: 1.52
episode: 616
               score: 2.0
                             memory length: 111467
                                                      epsilon: 0.9772933600004929
                              evaluation reward: 1.5
steps: 182
              lr: 0.0001
episode: 617
               score: 1.0
                             memory length: 111635
                                                      epsilon: 0.9769607200005002
steps: 168
              lr: 0.0001
                              evaluation reward: 1.47
episode: 618
               score: 1.0
                             memory length: 111805
                                                      epsilon: 0.9766241200005075
steps: 170
              lr: 0.0001
                              evaluation reward: 1.48
               score: 2.0
episode: 619
                             memory length: 112003
                                                      epsilon: 0.976232080000516
steps: 198
                              evaluation reward: 1.49
              lr: 0.0001
episode: 620
               score: 3.0
                             memory length: 112270
                                                      epsilon: 0.9757034200005275
steps: 267
              lr: 0.0001
                              evaluation reward: 1.5
episode: 621
               score: 0.0
                             memory length: 112392
                                                      epsilon: 0.9754618600005327
steps: 122
              lr: 0.0001
                              evaluation reward: 1.46
episode: 622
               score: 0.0
                             memory length: 112515
                                                      epsilon: 0.975218320000538
steps: 123
              lr: 0.0001
                              evaluation reward: 1.45
episode: 623
                             memory length: 112638
               score: 0.0
                                                      epsilon: 0.9749747800005433
                              evaluation reward: 1.45
steps: 123
              lr: 0.0001
                                                      epsilon: 0.9746777800005497
episode: 624
               score: 1.0
                             memory length: 112788
steps: 150
              lr: 0.0001
                              evaluation reward: 1.45
episode: 625
               score: 2.0
                             memory length: 112986
                                                      epsilon: 0.9742857400005582
steps: 198
              lr: 0.0001
                              evaluation reward: 1.46
episode: 626
               score: 1.0
                             memory length: 113154
                                                      epsilon: 0.9739531000005655
steps: 168
              lr: 0.0001
                              evaluation reward: 1.47
episode: 627
               score: 0.0
                             memory length: 113276
                                                      epsilon: 0.9737115400005707
steps: 122
              lr: 0.0001
                              evaluation reward: 1.47
                             memory length: 113446
episode: 628
               score: 1.0
                                                      epsilon: 0.973374940000578
steps: 170
              lr: 0.0001
                              evaluation reward: 1.48
                             memory length: 113569
episode: 629
                                                      epsilon: 0.9731314000005833
               score: 0.0
steps: 123
              lr: 0.0001
                              evaluation reward: 1.48
episode: 630
               score: 1.0
                             memory length: 113739
                                                      epsilon: 0.9727948000005906
steps: 170
                              evaluation reward: 1.48
              lr: 0.0001
                             memory length: 113909
episode: 631
                                                      epsilon: 0.9724582000005979
               score: 1.0
steps: 170
                              evaluation reward: 1.46
              lr: 0.0001
episode: 632
               score: 3.0
                             memory length: 114156
                                                      epsilon: 0.9719691400006085
steps: 247
              lr: 0.0001
                              evaluation reward: 1.48
episode: 633
               score: 2.0
                             memory length: 114353
                                                      epsilon: 0.971579080000617
steps: 197
              lr: 0.0001
                              evaluation reward: 1.5
episode: 634
                             memory length: 114476
                                                      epsilon: 0.9713355400006223
               score: 0.0
```

```
steps: 123
              lr: 0.0001
                              evaluation reward: 1.48
episode: 635
               score: 3.0
                             memory length: 114728
                                                      epsilon: 0.9708365800006331
steps: 252
                              evaluation reward: 1.5
              lr: 0.0001
               score: 1.0
episode: 636
                             memory length: 114879
                                                      epsilon: 0.9705376000006396
steps: 151
              lr: 0.0001
                              evaluation reward: 1.5
episode: 637
               score: 3.0
                             memory length: 115142
                                                      epsilon: 0.9700168600006509
steps: 263
              lr: 0.0001
                              evaluation reward: 1.53
episode: 638
               score: 0.0
                             memory length: 115264
                                                      epsilon: 0.9697753000006561
steps: 122
              lr: 0.0001
                              evaluation reward: 1.51
episode: 639
               score: 2.0
                             memory length: 115482
                                                      epsilon: 0.9693436600006655
steps: 218
              lr: 0.0001
                              evaluation reward: 1.51
episode: 640
               score: 0.0
                             memory length: 115605
                                                      epsilon: 0.9691001200006708
                              evaluation reward: 1.49
steps: 123
              lr: 0.0001
episode: 641
               score: 2.0
                             memory length: 115823
                                                      epsilon: 0.9686684800006802
steps: 218
              lr: 0.0001
                              evaluation reward: 1.5
episode: 642
               score: 3.0
                             memory length: 116089
                                                      epsilon: 0.9681418000006916
steps: 266
              lr: 0.0001
                              evaluation reward: 1.53
episode: 643
               score: 4.0
                             memory length: 116385
                                                      epsilon: 0.9675557200007043
                              evaluation reward: 1.55
steps: 296
              lr: 0.0001
episode: 644
                             memory length: 116507
                                                      epsilon: 0.9673141600007096
               score: 0.0
steps: 122
              lr: 0.0001
                              evaluation reward: 1.55
episode: 645
               score: 3.0
                             memory length: 116752
                                                      epsilon: 0.9668290600007201
steps: 245
              lr: 0.0001
                              evaluation reward: 1.55
episode: 646
               score: 1.0
                             memory length: 116924
                                                      epsilon: 0.9664885000007275
steps: 172
              lr: 0.0001
                              evaluation reward: 1.56
episode: 647
                             memory length: 117144
               score: 2.0
                                                      epsilon: 0.966052900000737
                              evaluation reward: 1.56
steps: 220
              lr: 0.0001
episode: 648
               score: 1.0
                             memory length: 117316
                                                      epsilon: 0.9657123400007444
steps: 172
              lr: 0.0001
                              evaluation reward: 1.53
episode: 649
                             memory length: 117438
                                                      epsilon: 0.9654707800007496
               score: 0.0
steps: 122
              lr: 0.0001
                              evaluation reward: 1.51
episode: 650
               score: 0.0
                             memory length: 117561
                                                      epsilon: 0.9652272400007549
steps: 123
              lr: 0.0001
                              evaluation reward: 1.49
episode: 651
               score: 1.0
                             memory length: 117711
                                                      epsilon: 0.9649302400007613
steps: 150
              lr: 0.0001
                              evaluation reward: 1.5
                             memory length: 117862
episode: 652
               score: 1.0
                                                      epsilon: 0.9646312600007678
steps: 151
              lr: 0.0001
                              evaluation reward: 1.5
                             memory length: 118131
episode: 653
                                                      epsilon: 0.9640986400007794
               score: 3.0
steps: 269
              lr: 0.0001
                              evaluation reward: 1.53
episode: 654
               score: 2.0
                             memory length: 118349
                                                      epsilon: 0.9636670000007888
steps: 218
              lr: 0.0001
                              evaluation reward: 1.53
                             memory length: 118500
episode: 655
                                                      epsilon: 0.9633680200007952
               score: 1.0
                              evaluation reward: 1.51
steps: 151
              lr: 0.0001
episode: 656
               score: 1.0
                             memory length: 118650
                                                      epsilon: 0.9630710200008017
steps: 150
              lr: 0.0001
                              evaluation reward: 1.49
                                                      epsilon: 0.962827480000807
episode: 657
               score: 0.0
                             memory length: 118773
steps: 123
              lr: 0.0001
                              evaluation reward: 1.46
episode: 658
                             memory length: 119096
                                                      epsilon: 0.9621879400008209
               score: 5.0
```

```
steps: 323
              lr: 0.0001
                              evaluation reward: 1.5
episode: 659
               score: 2.0
                             memory length: 119314
                                                      epsilon: 0.9617563000008302
steps: 218
                              evaluation reward: 1.5
              lr: 0.0001
               score: 3.0
episode: 660
                             memory length: 119562
                                                      epsilon: 0.9612652600008409
steps: 248
              lr: 0.0001
                              evaluation reward: 1.53
episode: 661
               score: 6.0
                             memory length: 119880
                                                      epsilon: 0.9606356200008546
steps: 318
              lr: 0.0001
                              evaluation reward: 1.55
                                                      epsilon: 0.960295060000862
episode: 662
               score: 1.0
                             memory length: 120052
steps: 172
              lr: 0.0001
                              evaluation reward: 1.56
episode: 663
               score: 1.0
                             memory length: 120221
                                                      epsilon: 0.9599604400008692
steps: 169
              lr: 0.0001
                              evaluation reward: 1.52
episode: 664
               score: 0.0
                             memory length: 120344
                                                      epsilon: 0.9597169000008745
                              evaluation reward: 1.5
steps: 123
              lr: 0.0001
episode: 665
               score: 0.0
                             memory length: 120466
                                                      epsilon: 0.9594753400008798
steps: 122
              lr: 0.0001
                              evaluation reward: 1.49
episode: 666
               score: 0.0
                             memory length: 120589
                                                      epsilon: 0.959231800000885
steps: 123
              lr: 0.0001
                              evaluation reward: 1.49
episode: 667
               score: 4.0
                             memory length: 120886
                                                      epsilon: 0.9586437400008978
                              evaluation reward: 1.53
steps: 297
              lr: 0.0001
episode: 668
               score: 0.0
                             memory length: 121009
                                                      epsilon: 0.9584002000009031
steps: 123
              lr: 0.0001
                              evaluation reward: 1.52
episode: 669
               score: 2.0
                             memory length: 121208
                                                      epsilon: 0.9580061800009116
steps: 199
              lr: 0.0001
                              evaluation reward: 1.51
episode: 670
               score: 1.0
                             memory length: 121358
                                                      epsilon: 0.9577091800009181
steps: 150
              lr: 0.0001
                              evaluation reward: 1.49
episode: 671
                             memory length: 121556
               score: 2.0
                                                      epsilon: 0.9573171400009266
                              evaluation reward: 1.48
steps: 198
              lr: 0.0001
episode: 672
               score: 3.0
                             memory length: 121787
                                                      epsilon: 0.9568597600009365
steps: 231
              lr: 0.0001
                              evaluation reward: 1.47
                             memory length: 121910
                                                      epsilon: 0.9566162200009418
episode: 673
               score: 0.0
steps: 123
              lr: 0.0001
                              evaluation reward: 1.46
episode: 674
               score: 2.0
                             memory length: 122133
                                                      epsilon: 0.9561746800009514
steps: 223
              lr: 0.0001
                              evaluation reward: 1.47
episode: 675
               score: 2.0
                             memory length: 122331
                                                      epsilon: 0.9557826400009599
steps: 198
              lr: 0.0001
                              evaluation reward: 1.49
episode: 676
               score: 0.0
                             memory length: 122453
                                                      epsilon: 0.9555410800009652
steps: 122
              lr: 0.0001
                              evaluation reward: 1.47
                             memory length: 122780
episode: 677
                                                      epsilon: 0.9548936200009792
               score: 6.0
steps: 327
              lr: 0.0001
                              evaluation reward: 1.53
episode: 678
               score: 1.0
                             memory length: 122932
                                                      epsilon: 0.9545926600009857
steps: 152
              lr: 0.0001
                              evaluation reward: 1.52
                             memory length: 123054
episode: 679
                                                      epsilon: 0.954351100000991
               score: 0.0
                              evaluation reward: 1.49
steps: 122
              lr: 0.0001
episode: 680
               score: 2.0
                             memory length: 123271
                                                      epsilon: 0.9539214400010003
steps: 217
              lr: 0.0001
                              evaluation reward: 1.5
episode: 681
               score: 2.0
                             memory length: 123474
                                                      epsilon: 0.953519500001009
steps: 203
              lr: 0.0001
                              evaluation reward: 1.51
episode: 682
                             memory length: 123768
                                                      epsilon: 0.9529373800010217
               score: 4.0
```

```
steps: 294
              lr: 0.0001
                              evaluation reward: 1.54
episode: 683
               score: 0.0
                             memory length: 123891
                                                      epsilon: 0.952693840001027
steps: 123
                              evaluation reward: 1.53
              lr: 0.0001
               score: 2.0
episode: 684
                             memory length: 124089
                                                      epsilon: 0.9523018000010355
steps: 198
              lr: 0.0001
                              evaluation reward: 1.53
episode: 685
               score: 3.0
                             memory length: 124317
                                                      epsilon: 0.9518503600010453
steps: 228
              lr: 0.0001
                              evaluation reward: 1.52
episode: 686
               score: 0.0
                             memory length: 124440
                                                      epsilon: 0.9516068200010506
steps: 123
              lr: 0.0001
                              evaluation reward: 1.5
episode: 687
               score: 1.0
                             memory length: 124590
                                                      epsilon: 0.951309820001057
steps: 150
              lr: 0.0001
                              evaluation reward: 1.5
episode: 688
               score: 3.0
                             memory length: 124859
                                                      epsilon: 0.9507772000010686
                              evaluation reward: 1.53
steps: 269
              lr: 0.0001
episode: 689
               score: 0.0
                             memory length: 124982
                                                      epsilon: 0.9505336600010739
steps: 123
              lr: 0.0001
                              evaluation reward: 1.52
episode: 690
               score: 4.0
                             memory length: 125258
                                                      epsilon: 0.9499871800010857
steps: 276
              lr: 0.0001
                              evaluation reward: 1.54
               score: 2.0
episode: 691
                             memory length: 125455
                                                      epsilon: 0.9495971200010942
                              evaluation reward: 1.54
steps: 197
              lr: 0.0001
episode: 692
               score: 4.0
                             memory length: 125751
                                                      epsilon: 0.9490110400011069
                              evaluation reward: 1.58
steps: 296
              lr: 0.0001
episode: 693
               score: 4.0
                             memory length: 126066
                                                      epsilon: 0.9483873400011205
steps: 315
              lr: 0.0001
                              evaluation reward: 1.62
                             memory length: 126188
episode: 694
               score: 0.0
                                                      epsilon: 0.9481457800011257
steps: 122
              lr: 0.0001
                              evaluation reward: 1.62
episode: 695
                             memory length: 126357
               score: 1.0
                                                      epsilon: 0.947811160001133
                              evaluation reward: 1.61
steps: 169
              lr: 0.0001
episode: 696
               score: 3.0
                             memory length: 126606
                                                      epsilon: 0.9473181400011437
steps: 249
              lr: 0.0001
                              evaluation reward: 1.62
episode: 697
               score: 3.0
                             memory length: 126831
                                                      epsilon: 0.9468726400011533
steps: 225
              lr: 0.0001
                              evaluation reward: 1.62
                                                      epsilon: 0.9465736600011598
episode: 698
               score: 1.0
                             memory length: 126982
steps: 151
              lr: 0.0001
                              evaluation reward: 1.62
episode: 699
               score: 3.0
                             memory length: 127229
                                                      epsilon: 0.9460846000011705
steps: 247
              lr: 0.0001
                              evaluation reward: 1.65
episode: 700
               score: 1.0
                             memory length: 127397
                                                      epsilon: 0.9457519600011777
steps: 168
              lr: 0.0001
                              evaluation reward: 1.64
                             memory length: 127519
episode: 701
                                                      epsilon: 0.9455104000011829
               score: 0.0
steps: 122
              lr: 0.0001
                              evaluation reward: 1.62
episode: 702
               score: 0.0
                             memory length: 127642
                                                      epsilon: 0.9452668600011882
                              evaluation reward: 1.61
steps: 123
              lr: 0.0001
                             memory length: 127858
episode: 703
               score: 2.0
                                                      epsilon: 0.9448391800011975
                              evaluation reward: 1.61
steps: 216
              lr: 0.0001
episode: 704
               score: 1.0
                             memory length: 128009
                                                      epsilon: 0.944540200001204
steps: 151
              lr: 0.0001
                              evaluation reward: 1.6
episode: 705
               score: 0.0
                             memory length: 128132
                                                      epsilon: 0.9442966600012093
steps: 123
              lr: 0.0001
                              evaluation reward: 1.58
episode: 706
                             memory length: 128282
                                                      epsilon: 0.9439996600012157
               score: 1.0
```

```
steps: 150
              lr: 0.0001
                              evaluation reward: 1.59
episode: 707
               score: 2.0
                             memory length: 128479
                                                      epsilon: 0.9436096000012242
steps: 197
                              evaluation reward: 1.59
              lr: 0.0001
               score: 1.0
episode: 708
                             memory length: 128647
                                                      epsilon: 0.9432769600012314
steps: 168
              lr: 0.0001
                              evaluation reward: 1.57
episode: 709
               score: 2.0
                             memory length: 128844
                                                      epsilon: 0.9428869000012399
steps: 197
              lr: 0.0001
                              evaluation reward: 1.57
episode: 710
               score: 4.0
                             memory length: 129112
                                                      epsilon: 0.9423562600012514
steps: 268
              lr: 0.0001
                              evaluation reward: 1.57
episode: 711
               score: 0.0
                             memory length: 129235
                                                      epsilon: 0.9421127200012567
steps: 123
              lr: 0.0001
                              evaluation reward: 1.55
episode: 712
               score: 1.0
                             memory length: 129386
                                                      epsilon: 0.9418137400012632
                              evaluation reward: 1.56
steps: 151
              lr: 0.0001
episode: 713
               score: 0.0
                             memory length: 129508
                                                      epsilon: 0.9415721800012684
steps: 122
              lr: 0.0001
                              evaluation reward: 1.53
episode: 714
               score: 2.0
                             memory length: 129710
                                                      epsilon: 0.9411722200012771
steps: 202
              lr: 0.0001
                              evaluation reward: 1.55
episode: 715
                                                      epsilon: 0.9405485200012906
               score: 4.0
                             memory length: 130025
steps: 315
                              evaluation reward: 1.59
              lr: 0.0001
episode: 716
               score: 2.0
                             memory length: 130243
                                                      epsilon: 0.9401168800013
steps: 218
              lr: 0.0001
                              evaluation reward: 1.59
episode: 717
               score: 1.0
                             memory length: 130412
                                                      epsilon: 0.9397822600013073
steps: 169
              lr: 0.0001
                              evaluation reward: 1.59
episode: 718
               score: 3.0
                             memory length: 130681
                                                      epsilon: 0.9392496400013188
steps: 269
              lr: 0.0001
                              evaluation reward: 1.61
episode: 719
                             memory length: 130878
               score: 2.0
                                                      epsilon: 0.9388595800013273
                              evaluation reward: 1.61
steps: 197
              lr: 0.0001
episode: 720
               score: 3.0
                             memory length: 131106
                                                      epsilon: 0.9384081400013371
steps: 228
              lr: 0.0001
                              evaluation reward: 1.61
episode: 721
               score: 2.0
                             memory length: 131325
                                                      epsilon: 0.9379745200013465
steps: 219
              lr: 0.0001
                              evaluation reward: 1.63
episode: 722
               score: 7.0
                             memory length: 131746
                                                      epsilon: 0.9371409400013646
steps: 421
              lr: 0.0001
                              evaluation reward: 1.7
               score: 2.0
episode: 723
                             memory length: 131946
                                                      epsilon: 0.9367449400013732
steps: 200
              lr: 0.0001
                              evaluation reward: 1.72
episode: 724
               score: 2.0
                             memory length: 132164
                                                      epsilon: 0.9363133000013826
steps: 218
              lr: 0.0001
                              evaluation reward: 1.73
                             memory length: 132287
episode: 725
                                                      epsilon: 0.9360697600013879
               score: 0.0
steps: 123
              lr: 0.0001
                              evaluation reward: 1.71
episode: 726
               score: 2.0
                             memory length: 132484
                                                      epsilon: 0.9356797000013963
steps: 197
              lr: 0.0001
                              evaluation reward: 1.72
episode: 727
               score: 5.0
                             memory length: 132803
                                                      epsilon: 0.93504808000141
                              evaluation reward: 1.77
steps: 319
              lr: 0.0001
episode: 728
               score: 0.0
                             memory length: 132926
                                                      epsilon: 0.9348045400014153
steps: 123
              lr: 0.0001
                              evaluation reward: 1.76
                                                      epsilon: 0.9344144800014238
episode: 729
               score: 2.0
                             memory length: 133123
steps: 197
              lr: 0.0001
                              evaluation reward: 1.78
episode: 730
                             memory length: 133293
                                                      epsilon: 0.9340778800014311
               score: 1.0
```

```
lr: 0.0001
                              evaluation reward: 1.78
steps: 170
episode: 731
               score: 0.0
                             memory length: 133416
                                                      epsilon: 0.9338343400014364
steps: 123
                              evaluation reward: 1.77
              lr: 0.0001
               score: 1.0
episode: 732
                             memory length: 133567
                                                      epsilon: 0.9335353600014429
steps: 151
              lr: 0.0001
                              evaluation reward: 1.75
episode: 733
               score: 4.0
                             memory length: 133843
                                                      epsilon: 0.9329888800014547
steps: 276
              lr: 0.0001
                              evaluation reward: 1.77
episode: 734
               score: 0.0
                             memory length: 133966
                                                      epsilon: 0.93274534000146
steps: 123
              lr: 0.0001
                              evaluation reward: 1.77
episode: 735
               score: 3.0
                             memory length: 134216
                                                      epsilon: 0.9322503400014708
steps: 250
              lr: 0.0001
                              evaluation reward: 1.77
episode: 736
               score: 0.0
                             memory length: 134338
                                                      epsilon: 0.932008780001476
                              evaluation reward: 1.76
steps: 122
              lr: 0.0001
episode: 737
               score: 0.0
                             memory length: 134461
                                                      epsilon: 0.9317652400014813
steps: 123
              lr: 0.0001
                              evaluation reward: 1.73
episode: 738
               score: 2.0
                             memory length: 134679
                                                      epsilon: 0.9313336000014907
steps: 218
              lr: 0.0001
                              evaluation reward: 1.75
               score: 2.0
episode: 739
                             memory length: 134877
                                                      epsilon: 0.9309415600014992
                              evaluation reward: 1.75
steps: 198
              lr: 0.0001
episode: 740
               score: 2.0
                             memory length: 135095
                                                      epsilon: 0.9305099200015086
                              evaluation reward: 1.77
steps: 218
              lr: 0.0001
episode: 741
               score: 4.0
                             memory length: 135391
                                                      epsilon: 0.9299238400015213
steps: 296
              lr: 0.0001
                              evaluation reward: 1.79
episode: 742
               score: 1.0
                             memory length: 135559
                                                      epsilon: 0.9295912000015285
steps: 168
              lr: 0.0001
                              evaluation reward: 1.77
episode: 743
                             memory length: 135833
               score: 4.0
                                                      epsilon: 0.9290486800015403
                              evaluation reward: 1.77
steps: 274
              lr: 0.0001
episode: 744
               score: 9.0
                             memory length: 136222
                                                      epsilon: 0.928278460001557
steps: 389
              lr: 0.0001
                              evaluation reward: 1.86
episode: 745
               score: 2.0
                             memory length: 136438
                                                      epsilon: 0.9278507800015663
steps: 216
              lr: 0.0001
                              evaluation reward: 1.85
episode: 746
               score: 3.0
                             memory length: 136666
                                                      epsilon: 0.9273993400015761
steps: 228
              lr: 0.0001
                              evaluation reward: 1.87
               score: 2.0
episode: 747
                             memory length: 136845
                                                      epsilon: 0.9270449200015838
steps: 179
              lr: 0.0001
                              evaluation reward: 1.87
episode: 748
               score: 0.0
                             memory length: 136967
                                                      epsilon: 0.926803360001589
steps: 122
              lr: 0.0001
                              evaluation reward: 1.86
                             memory length: 137135
episode: 749
                                                      epsilon: 0.9264707200015962
               score: 1.0
steps: 168
              lr: 0.0001
                              evaluation reward: 1.87
episode: 750
               score: 0.0
                             memory length: 137258
                                                      epsilon: 0.9262271800016015
                              evaluation reward: 1.87
steps: 123
              lr: 0.0001
episode: 751
                             memory length: 137381
                                                      epsilon: 0.9259836400016068
               score: 0.0
              lr: 0.0001
                              evaluation reward: 1.86
steps: 123
episode: 752
               score: 2.0
                             memory length: 137599
                                                      epsilon: 0.9255520000016162
steps: 218
              lr: 0.0001
                              evaluation reward: 1.87
                                                      epsilon: 0.9251203600016256
episode: 753
               score: 2.0
                             memory length: 137817
steps: 218
              lr: 0.0001
                              evaluation reward: 1.86
episode: 754
                             memory length: 138062
                                                      epsilon: 0.9246352600016361
               score: 3.0
```

```
steps: 245
              lr: 0.0001
                              evaluation reward: 1.87
episode: 755
               score: 2.0
                             memory length: 138277
                                                      epsilon: 0.9242095600016453
steps: 215
                              evaluation reward: 1.88
              lr: 0.0001
               score: 1.0
episode: 756
                             memory length: 138445
                                                      epsilon: 0.9238769200016526
steps: 168
              lr: 0.0001
                              evaluation reward: 1.88
episode: 757
               score: 0.0
                             memory length: 138567
                                                      epsilon: 0.9236353600016578
steps: 122
              lr: 0.0001
                              evaluation reward: 1.88
episode: 758
               score: 0.0
                             memory length: 138689
                                                      epsilon: 0.923393800001663
steps: 122
              lr: 0.0001
                              evaluation reward: 1.83
episode: 759
               score: 2.0
                             memory length: 138908
                                                      epsilon: 0.9229601800016725
steps: 219
              lr: 0.0001
                              evaluation reward: 1.83
episode: 760
               score: 1.0
                             memory length: 139077
                                                      epsilon: 0.9226255600016797
steps: 169
                              evaluation reward: 1.81
              lr: 0.0001
episode: 761
               score: 4.0
                             memory length: 139391
                                                      epsilon: 0.9220038400016932
steps: 314
              lr: 0.0001
                              evaluation reward: 1.79
episode: 762
               score: 0.0
                             memory length: 139513
                                                      epsilon: 0.9217622800016985
steps: 122
              lr: 0.0001
                              evaluation reward: 1.78
episode: 763
               score: 1.0
                             memory length: 139664
                                                      epsilon: 0.921463300001705
steps: 151
                              evaluation reward: 1.78
              lr: 0.0001
episode: 764
               score: 3.0
                             memory length: 139913
                                                      epsilon: 0.9209702800017157
steps: 249
              lr: 0.0001
                              evaluation reward: 1.81
episode: 765
               score: 5.0
                             memory length: 140223
                                                      epsilon: 0.920356480001729
steps: 310
              lr: 0.0001
                              evaluation reward: 1.86
episode: 766
               score: 2.0
                             memory length: 140443
                                                      epsilon: 0.9199208800017384
steps: 220
              lr: 0.0001
                              evaluation reward: 1.88
episode: 767
                             memory length: 140711
               score: 3.0
                                                      epsilon: 0.91939024000175
                              evaluation reward: 1.87
steps: 268
              lr: 0.0001
episode: 768
               score: 3.0
                             memory length: 140958
                                                      epsilon: 0.9189011800017606
steps: 247
              lr: 0.0001
                              evaluation reward: 1.9
episode: 769
               score: 2.0
                             memory length: 141175
                                                      epsilon: 0.9184715200017699
steps: 217
              lr: 0.0001
                              evaluation reward: 1.9
episode: 770
               score: 2.0
                             memory length: 141373
                                                      epsilon: 0.9180794800017784
steps: 198
              lr: 0.0001
                              evaluation reward: 1.91
episode: 771
               score: 0.0
                             memory length: 141496
                                                      epsilon: 0.9178359400017837
steps: 123
              lr: 0.0001
                              evaluation reward: 1.89
                             memory length: 141619
episode: 772
               score: 0.0
                                                      epsilon: 0.917592400001789
steps: 123
              lr: 0.0001
                              evaluation reward: 1.86
                             memory length: 141918
episode: 773
                                                      epsilon: 0.9170003800018018
               score: 4.0
steps: 299
              lr: 0.0001
                              evaluation reward: 1.9
episode: 774
               score: 1.0
                             memory length: 142088
                                                      epsilon: 0.9166637800018091
                              evaluation reward: 1.89
steps: 170
              lr: 0.0001
                             memory length: 142399
episode: 775
               score: 4.0
                                                      epsilon: 0.9160480000018225
                              evaluation reward: 1.91
steps: 311
              lr: 0.0001
episode: 776
               score: 2.0
                             memory length: 142578
                                                      epsilon: 0.9156935800018302
steps: 179
              lr: 0.0001
                              evaluation reward: 1.93
episode: 777
               score: 0.0
                             memory length: 142701
                                                      epsilon: 0.9154500400018355
steps: 123
              lr: 0.0001
                              evaluation reward: 1.87
episode: 778
                             memory length: 142899
                                                      epsilon: 0.915058000001844
               score: 2.0
```

```
evaluation reward: 1.88
steps: 198
              lr: 0.0001
episode: 779
               score: 2.0
                             memory length: 143115
                                                      epsilon: 0.9146303200018533
steps: 216
                              evaluation reward: 1.9
              lr: 0.0001
episode: 780
               score: 0.0
                             memory length: 143238
                                                      epsilon: 0.9143867800018586
steps: 123
              lr: 0.0001
                              evaluation reward: 1.88
episode: 781
               score: 2.0
                             memory length: 143436
                                                      epsilon: 0.9139947400018671
steps: 198
              lr: 0.0001
                              evaluation reward: 1.88
episode: 782
               score: 1.0
                             memory length: 143607
                                                      epsilon: 0.9136561600018744
steps: 171
              lr: 0.0001
                              evaluation reward: 1.85
episode: 783
               score: 2.0
                             memory length: 143825
                                                      epsilon: 0.9132245200018838
steps: 218
              lr: 0.0001
                              evaluation reward: 1.87
episode: 784
               score: 0.0
                             memory length: 143947
                                                      epsilon: 0.912982960001889
                              evaluation reward: 1.85
steps: 122
              lr: 0.0001
episode: 785
               score: 2.0
                             memory length: 144144
                                                      epsilon: 0.9125929000018975
steps: 197
              lr: 0.0001
                              evaluation reward: 1.84
episode: 786
               score: 0.0
                             memory length: 144267
                                                      epsilon: 0.9123493600019028
steps: 123
              lr: 0.0001
                              evaluation reward: 1.84
episode: 787
               score: 0.0
                             memory length: 144390
                                                      epsilon: 0.9121058200019081
                              evaluation reward: 1.83
steps: 123
              lr: 0.0001
episode: 788
               score: 1.0
                             memory length: 144559
                                                      epsilon: 0.9117712000019154
                              evaluation reward: 1.81
steps: 169
              lr: 0.0001
episode: 789
               score: 2.0
                             memory length: 144757
                                                      epsilon: 0.9113791600019239
steps: 198
              lr: 0.0001
                              evaluation reward: 1.83
episode: 790
               score: 0.0
                             memory length: 144880
                                                      epsilon: 0.9111356200019292
steps: 123
              lr: 0.0001
                              evaluation reward: 1.79
episode: 791
                             memory length: 145078
               score: 2.0
                                                      epsilon: 0.9107435800019377
                              evaluation reward: 1.79
steps: 198
              lr: 0.0001
episode: 792
               score: 0.0
                             memory length: 145200
                                                      epsilon: 0.9105020200019429
steps: 122
              lr: 0.0001
                              evaluation reward: 1.75
episode: 793
               score: 0.0
                             memory length: 145322
                                                      epsilon: 0.9102604600019482
steps: 122
              lr: 0.0001
                              evaluation reward: 1.71
episode: 794
               score: 0.0
                             memory length: 145445
                                                      epsilon: 0.9100169200019534
steps: 123
              lr: 0.0001
                              evaluation reward: 1.71
episode: 795
               score: 2.0
                             memory length: 145663
                                                      epsilon: 0.9095852800019628
steps: 218
              lr: 0.0001
                              evaluation reward: 1.72
episode: 796
               score: 2.0
                             memory length: 145861
                                                      epsilon: 0.9091932400019713
steps: 198
              lr: 0.0001
                              evaluation reward: 1.71
                             memory length: 146032
episode: 797
                                                      epsilon: 0.9088546600019787
               score: 1.0
steps: 171
              lr: 0.0001
                              evaluation reward: 1.69
episode: 798
               score: 2.0
                             memory length: 146247
                                                      epsilon: 0.9084289600019879
                              evaluation reward: 1.7
steps: 215
              lr: 0.0001
                             memory length: 146445
episode: 799
               score: 2.0
                                                      epsilon: 0.9080369200019964
              lr: 0.0001
                              evaluation reward: 1.69
steps: 198
episode: 800
               score: 0.0
                             memory length: 146568
                                                      epsilon: 0.9077933800020017
steps: 123
              lr: 0.0001
                              evaluation reward: 1.68
episode: 801
               score: 2.0
                             memory length: 146766
                                                      epsilon: 0.9074013400020102
steps: 198
              lr: 0.0001
                              evaluation reward: 1.7
episode: 802
                             memory length: 147044
                                                      epsilon: 0.9068509000020222
               score: 4.0
```

```
evaluation reward: 1.74
steps: 278
              lr: 0.0001
episode: 803
               score: 2.0
                             memory length: 147260
                                                      epsilon: 0.9064232200020315
steps: 216
                              evaluation reward: 1.74
              lr: 0.0001
               score: 2.0
episode: 804
                             memory length: 147461
                                                      epsilon: 0.9060252400020401
steps: 201
              lr: 0.0001
                              evaluation reward: 1.75
episode: 805
               score: 0.0
                             memory length: 147583
                                                      epsilon: 0.9057836800020453
steps: 122
              lr: 0.0001
                              evaluation reward: 1.75
episode: 806
               score: 2.0
                             memory length: 147798
                                                      epsilon: 0.9053579800020546
steps: 215
              lr: 0.0001
                              evaluation reward: 1.76
episode: 807
               score: 2.0
                             memory length: 147996
                                                      epsilon: 0.9049659400020631
steps: 198
              lr: 0.0001
                              evaluation reward: 1.76
episode: 808
               score: 0.0
                             memory length: 148119
                                                      epsilon: 0.9047224000020684
                              evaluation reward: 1.75
steps: 123
              lr: 0.0001
episode: 809
               score: 2.0
                             memory length: 148316
                                                      epsilon: 0.9043323400020769
steps: 197
              lr: 0.0001
                              evaluation reward: 1.75
episode: 810
               score: 0.0
                             memory length: 148438
                                                      epsilon: 0.9040907800020821
steps: 122
              lr: 0.0001
                              evaluation reward: 1.71
episode: 811
               score: 0.0
                             memory length: 148560
                                                      epsilon: 0.9038492200020873
steps: 122
                              evaluation reward: 1.71
              lr: 0.0001
episode: 812
               score: 2.0
                             memory length: 148777
                                                      epsilon: 0.9034195600020967
                              evaluation reward: 1.72
steps: 217
              lr: 0.0001
episode: 813
               score: 3.0
                             memory length: 149005
                                                      epsilon: 0.9029681200021065
steps: 228
              lr: 0.0001
                              evaluation reward: 1.75
episode: 814
               score: 1.0
                             memory length: 149177
                                                      epsilon: 0.9026275600021139
steps: 172
              lr: 0.0001
                              evaluation reward: 1.74
episode: 815
                             memory length: 149408
               score: 3.0
                                                      epsilon: 0.9021701800021238
steps: 231
              lr: 0.0001
                              evaluation reward: 1.73
episode: 816
               score: 2.0
                             memory length: 149606
                                                      epsilon: 0.9017781400021323
steps: 198
              lr: 0.0001
                              evaluation reward: 1.73
               score: 3.0
                             memory length: 149831
                                                      epsilon: 0.901332640002142
episode: 817
steps: 225
              lr: 0.0001
                              evaluation reward: 1.75
episode: 818
               score: 1.0
                             memory length: 150003
                                                      epsilon: 0.9009920800021494
steps: 172
              lr: 0.0001
                              evaluation reward: 1.73
               score: 2.0
episode: 819
                             memory length: 150183
                                                      epsilon: 0.9006356800021571
steps: 180
              lr: 0.0001
                              evaluation reward: 1.73
episode: 820
               score: 8.0
                             memory length: 150530
                                                      epsilon: 0.899948620002172
steps: 347
              lr: 0.0001
                              evaluation reward: 1.78
                             memory length: 150773
episode: 821
                                                      epsilon: 0.8994674800021825
               score: 3.0
steps: 243
              lr: 0.0001
                              evaluation reward: 1.79
episode: 822
               score: 2.0
                             memory length: 150989
                                                      epsilon: 0.8990398000021917
                              evaluation reward: 1.74
steps: 216
              lr: 0.0001
episode: 823
                             memory length: 151112
                                                      epsilon: 0.898796260002197
               score: 0.0
              lr: 0.0001
                              evaluation reward: 1.72
steps: 123
episode: 824
               score: 1.0
                             memory length: 151263
                                                      epsilon: 0.8984972800022035
steps: 151
              lr: 0.0001
                              evaluation reward: 1.71
                                                      epsilon: 0.898105240002212
episode: 825
               score: 2.0
                             memory length: 151461
steps: 198
              lr: 0.0001
                              evaluation reward: 1.73
episode: 826
                             memory length: 151708
                                                      epsilon: 0.8976161800022227
               score: 3.0
```

```
steps: 247
              lr: 0.0001
                              evaluation reward: 1.74
episode: 827
               score: 2.0
                             memory length: 151909
                                                      epsilon: 0.8972182000022313
steps: 201
                              evaluation reward: 1.71
              lr: 0.0001
               score: 4.0
episode: 828
                             memory length: 152203
                                                      epsilon: 0.8966360800022439
steps: 294
              lr: 0.0001
                              evaluation reward: 1.75
episode: 829
               score: 3.0
                             memory length: 152431
                                                      epsilon: 0.8961846400022537
steps: 228
              lr: 0.0001
                              evaluation reward: 1.76
episode: 830
               score: 2.0
                             memory length: 152648
                                                      epsilon: 0.8957549800022631
steps: 217
              lr: 0.0001
                              evaluation reward: 1.77
episode: 831
               score: 0.0
                             memory length: 152771
                                                      epsilon: 0.8955114400022683
steps: 123
              lr: 0.0001
                              evaluation reward: 1.77
episode: 832
               score: 0.0
                             memory length: 152894
                                                      epsilon: 0.8952679000022736
                              evaluation reward: 1.76
steps: 123
              lr: 0.0001
episode: 833
               score: 3.0
                             memory length: 153140
                                                      epsilon: 0.8947808200022842
steps: 246
              lr: 0.0001
                              evaluation reward: 1.75
episode: 834
               score: 1.0
                             memory length: 153309
                                                      epsilon: 0.8944462000022915
steps: 169
              lr: 0.0001
                              evaluation reward: 1.76
               score: 2.0
episode: 835
                             memory length: 153506
                                                      epsilon: 0.8940561400022999
                              evaluation reward: 1.75
steps: 197
              lr: 0.0001
episode: 836
               score: 2.0
                             memory length: 153685
                                                      epsilon: 0.8937017200023076
steps: 179
              lr: 0.0001
                              evaluation reward: 1.77
episode: 837
               score: 1.0
                             memory length: 153853
                                                      epsilon: 0.8933690800023149
steps: 168
              lr: 0.0001
                              evaluation reward: 1.78
episode: 838
               score: 3.0
                             memory length: 154101
                                                      epsilon: 0.8928780400023255
steps: 248
              lr: 0.0001
                              evaluation reward: 1.79
episode: 839
                             memory length: 154224
               score: 0.0
                                                      epsilon: 0.8926345000023308
                              evaluation reward: 1.77
steps: 123
              lr: 0.0001
episode: 840
               score: 3.0
                             memory length: 154468
                                                      epsilon: 0.8921513800023413
steps: 244
              lr: 0.0001
                              evaluation reward: 1.78
                             memory length: 154618
                                                      epsilon: 0.8918543800023477
episode: 841
               score: 1.0
steps: 150
              lr: 0.0001
                              evaluation reward: 1.75
episode: 842
               score: 1.0
                             memory length: 154788
                                                      epsilon: 0.891517780002355
steps: 170
              lr: 0.0001
                              evaluation reward: 1.75
episode: 843
               score: 2.0
                             memory length: 154985
                                                      epsilon: 0.8911277200023635
steps: 197
              lr: 0.0001
                              evaluation reward: 1.73
episode: 844
               score: 2.0
                             memory length: 155183
                                                      epsilon: 0.890735680002372
steps: 198
              lr: 0.0001
                              evaluation reward: 1.66
                             memory length: 155409
episode: 845
                                                      epsilon: 0.8902882000023817
               score: 3.0
steps: 226
              lr: 0.0001
                              evaluation reward: 1.67
episode: 846
               score: 0.0
                             memory length: 155532
                                                      epsilon: 0.890044660002387
steps: 123
              lr: 0.0001
                              evaluation reward: 1.64
episode: 847
               score: 2.0
                             memory length: 155730
                                                      epsilon: 0.8896526200023955
                              evaluation reward: 1.64
steps: 198
              lr: 0.0001
episode: 848
               score: 3.0
                             memory length: 155956
                                                      epsilon: 0.8892051400024052
              lr: 0.0001
                              evaluation reward: 1.67
steps: 226
episode: 849
               score: 4.0
                             memory length: 156249
                                                      epsilon: 0.8886250000024178
steps: 293
              lr: 0.0001
                              evaluation reward: 1.7
episode: 850
                             memory length: 156372
               score: 0.0
                                                      epsilon: 0.8883814600024231
```

```
lr: 0.0001
steps: 123
                              evaluation reward: 1.7
episode: 851
               score: 7.0
                             memory length: 156784
                                                     epsilon: 0.8875657000024408
steps: 412
                              evaluation reward: 1.77
              lr: 0.0001
               score: 2.0
episode: 852
                             memory length: 156982
                                                      epsilon: 0.8871736600024493
steps: 198
              lr: 0.0001
                              evaluation reward: 1.77
episode: 853
               score: 0.0
                             memory length: 157105
                                                      epsilon: 0.8869301200024546
steps: 123
              lr: 0.0001
                              evaluation reward: 1.75
episode: 854
               score: 2.0
                             memory length: 157303
                                                      epsilon: 0.8865380800024631
steps: 198
              lr: 0.0001
                              evaluation reward: 1.74
episode: 855
               score: 2.0
                             memory length: 157502
                                                      epsilon: 0.8861440600024717
steps: 199
              lr: 0.0001
                              evaluation reward: 1.74
               score: 2.0
episode: 856
                             memory length: 157699
                                                      epsilon: 0.8857540000024802
steps: 197
                              evaluation reward: 1.75
              lr: 0.0001
episode: 857
               score: 1.0
                             memory length: 157868
                                                      epsilon: 0.8854193800024874
steps: 169
              lr: 0.0001
                              evaluation reward: 1.76
episode: 858
               score: 1.0
                             memory length: 158039
                                                      epsilon: 0.8850808000024948
steps: 171
              lr: 0.0001
                              evaluation reward: 1.77
episode: 859
               score: 1.0
                             memory length: 158208
                                                      epsilon: 0.884746180002502
                              evaluation reward: 1.76
steps: 169
              lr: 0.0001
episode: 860
               score: 3.0
                             memory length: 158456
                                                      epsilon: 0.8842551400025127
                              evaluation reward: 1.78
steps: 248
              lr: 0.0001
episode: 861
               score: 2.0
                             memory length: 158654
                                                      epsilon: 0.8838631000025212
steps: 198
              lr: 0.0001
                              evaluation reward: 1.76
episode: 862
               score: 3.0
                             memory length: 158898
                                                      epsilon: 0.8833799800025317
steps: 244
              lr: 0.0001
                              evaluation reward: 1.79
episode: 863
                             memory length: 159095
               score: 2.0
                                                      epsilon: 0.8829899200025402
                              evaluation reward: 1.8
steps: 197
              lr: 0.0001
episode: 864
               score: 0.0
                             memory length: 159218
                                                      epsilon: 0.8827463800025455
steps: 123
              lr: 0.0001
                              evaluation reward: 1.77
episode: 865
               score: 2.0
                             memory length: 159416
                                                      epsilon: 0.882354340002554
steps: 198
              lr: 0.0001
                              evaluation reward: 1.74
episode: 866
               score: 5.0
                             memory length: 159718
                                                      epsilon: 0.881756380002567
steps: 302
              lr: 0.0001
                              evaluation reward: 1.77
episode: 867
               score: 3.0
                             memory length: 159989
                                                      epsilon: 0.8812198000025786
steps: 271
              lr: 0.0001
                              evaluation reward: 1.77
episode: 868
               score: 2.0
                             memory length: 160207
                                                      epsilon: 0.880788160002588
steps: 218
              lr: 0.0001
                              evaluation reward: 1.76
                             memory length: 160386
episode: 869
               score: 2.0
                                                      epsilon: 0.8804337400025957
steps: 179
              lr: 0.0001
                              evaluation reward: 1.76
episode: 870
               score: 0.0
                             memory length: 160508
                                                      epsilon: 0.8801921800026009
                              evaluation reward: 1.74
steps: 122
              lr: 0.0001
                             memory length: 160706
episode: 871
               score: 2.0
                                                      epsilon: 0.8798001400026094
                              evaluation reward: 1.76
steps: 198
              lr: 0.0001
episode: 872
               score: 2.0
                             memory length: 160906
                                                      epsilon: 0.879404140002618
steps: 200
              lr: 0.0001
                              evaluation reward: 1.78
episode: 873
               score: 0.0
                             memory length: 161029
                                                      epsilon: 0.8791606000026233
steps: 123
              lr: 0.0001
                              evaluation reward: 1.74
episode: 874
                             memory length: 161226
                                                      epsilon: 0.8787705400026318
               score: 2.0
```

```
lr: 0.0001
                              evaluation reward: 1.75
steps: 197
episode: 875
               score: 0.0
                             memory length: 161348
                                                      epsilon: 0.878528980002637
steps: 122
              lr: 0.0001
                              evaluation reward: 1.71
episode: 876
               score: 0.0
                             memory length: 161470
                                                      epsilon: 0.8782874200026423
steps: 122
              lr: 0.0001
                              evaluation reward: 1.69
episode: 877
               score: 2.0
                             memory length: 161668
                                                      epsilon: 0.8778953800026508
steps: 198
              lr: 0.0001
                              evaluation reward: 1.71
episode: 878
               score: 2.0
                             memory length: 161868
                                                      epsilon: 0.8774993800026594
steps: 200
              lr: 0.0001
                              evaluation reward: 1.71
episode: 879
               score: 0.0
                             memory length: 161990
                                                      epsilon: 0.8772578200026646
steps: 122
              lr: 0.0001
                              evaluation reward: 1.69
episode: 880
               score: 0.0
                             memory length: 162113
                                                      epsilon: 0.8770142800026699
steps: 123
                              evaluation reward: 1.69
              lr: 0.0001
episode: 881
               score: 3.0
                             memory length: 162362
                                                      epsilon: 0.8765212600026806
steps: 249
              lr: 0.0001
                              evaluation reward: 1.7
episode: 882
               score: 2.0
                             memory length: 162580
                                                      epsilon: 0.87608962000269
steps: 218
              lr: 0.0001
                              evaluation reward: 1.71
episode: 883
               score: 1.0
                             memory length: 162731
                                                      epsilon: 0.8757906400026965
steps: 151
                              evaluation reward: 1.7
              lr: 0.0001
episode: 884
               score: 2.0
                             memory length: 162931
                                                      epsilon: 0.8753946400027051
steps: 200
              lr: 0.0001
                              evaluation reward: 1.72
episode: 885
               score: 1.0
                             memory length: 163103
                                                      epsilon: 0.8750540800027125
steps: 172
              lr: 0.0001
                              evaluation reward: 1.71
episode: 886
               score: 2.0
                             memory length: 163283
                                                      epsilon: 0.8746976800027202
steps: 180
              lr: 0.0001
                              evaluation reward: 1.73
episode: 887
                             memory length: 163530
               score: 3.0
                                                      epsilon: 0.8742086200027308
                              evaluation reward: 1.76
steps: 247
              lr: 0.0001
episode: 888
               score: 0.0
                             memory length: 163653
                                                      epsilon: 0.8739650800027361
steps: 123
              lr: 0.0001
                              evaluation reward: 1.75
episode: 889
               score: 2.0
                             memory length: 163855
                                                      epsilon: 0.8735651200027448
steps: 202
              lr: 0.0001
                              evaluation reward: 1.75
episode: 890
               score: 1.0
                             memory length: 164005
                                                      epsilon: 0.8732681200027512
steps: 150
              lr: 0.0001
                              evaluation reward: 1.76
episode: 891
               score: 0.0
                             memory length: 164128
                                                      epsilon: 0.8730245800027565
steps: 123
              lr: 0.0001
                              evaluation reward: 1.74
episode: 892
               score: 0.0
                             memory length: 164251
                                                      epsilon: 0.8727810400027618
steps: 123
              lr: 0.0001
                              evaluation reward: 1.74
                             memory length: 164508
episode: 893
                                                      epsilon: 0.8722721800027728
               score: 4.0
steps: 257
              lr: 0.0001
                              evaluation reward: 1.78
episode: 894
               score: 1.0
                             memory length: 164678
                                                      epsilon: 0.8719355800027802
                              evaluation reward: 1.79
steps: 170
              lr: 0.0001
                             memory length: 164875
episode: 895
               score: 2.0
                                                      epsilon: 0.8715455200027886
                              evaluation reward: 1.79
steps: 197
              lr: 0.0001
episode: 896
               score: 2.0
                             memory length: 165073
                                                      epsilon: 0.8711534800027971
steps: 198
              lr: 0.0001
                              evaluation reward: 1.79
episode: 897
               score: 2.0
                             memory length: 165270
                                                      epsilon: 0.8707634200028056
steps: 197
              lr: 0.0001
                              evaluation reward: 1.8
episode: 898
                             memory length: 165539
                                                      epsilon: 0.8702308000028172
               score: 3.0
```

```
steps: 269
              lr: 0.0001
                              evaluation reward: 1.81
episode: 899
               score: 2.0
                             memory length: 165737
                                                      epsilon: 0.8698387600028257
steps: 198
                              evaluation reward: 1.81
              lr: 0.0001
               score: 2.0
episode: 900
                             memory length: 165934
                                                      epsilon: 0.8694487000028341
steps: 197
              lr: 0.0001
                              evaluation reward: 1.83
episode: 901
               score: 0.0
                             memory length: 166057
                                                      epsilon: 0.8692051600028394
steps: 123
              lr: 0.0001
                              evaluation reward: 1.81
episode: 902
               score: 3.0
                             memory length: 166286
                                                      epsilon: 0.8687517400028493
steps: 229
              lr: 0.0001
                              evaluation reward: 1.8
episode: 903
               score: 2.0
                             memory length: 166485
                                                      epsilon: 0.8683577200028578
steps: 199
              lr: 0.0001
                              evaluation reward: 1.8
episode: 904
               score: 0.0
                             memory length: 166608
                                                      epsilon: 0.8681141800028631
                              evaluation reward: 1.78
steps: 123
              lr: 0.0001
episode: 905
               score: 1.0
                             memory length: 166777
                                                      epsilon: 0.8677795600028704
steps: 169
              lr: 0.0001
                              evaluation reward: 1.79
episode: 906
               score: 0.0
                             memory length: 166900
                                                      epsilon: 0.8675360200028757
steps: 123
              lr: 0.0001
                              evaluation reward: 1.77
               score: 2.0
episode: 907
                             memory length: 167097
                                                      epsilon: 0.8671459600028841
steps: 197
                              evaluation reward: 1.77
              lr: 0.0001
episode: 908
               score: 2.0
                             memory length: 167294
                                                      epsilon: 0.8667559000028926
steps: 197
              lr: 0.0001
                              evaluation reward: 1.79
episode: 909
               score: 3.0
                             memory length: 167539
                                                      epsilon: 0.8662708000029031
steps: 245
              lr: 0.0001
                              evaluation reward: 1.8
episode: 910
               score: 3.0
                             memory length: 167767
                                                      epsilon: 0.8658193600029129
steps: 228
              lr: 0.0001
                              evaluation reward: 1.83
episode: 911
                             memory length: 167993
               score: 3.0
                                                      epsilon: 0.8653718800029226
                              evaluation reward: 1.86
steps: 226
              lr: 0.0001
episode: 912
               score: 4.0
                             memory length: 168290
                                                      epsilon: 0.8647838200029354
steps: 297
              lr: 0.0001
                              evaluation reward: 1.88
episode: 913
               score: 1.0
                             memory length: 168441
                                                      epsilon: 0.8644848400029419
steps: 151
              lr: 0.0001
                              evaluation reward: 1.86
episode: 914
               score: 1.0
                             memory length: 168610
                                                      epsilon: 0.8641502200029492
steps: 169
              lr: 0.0001
                              evaluation reward: 1.86
               score: 2.0
episode: 915
                             memory length: 168808
                                                      epsilon: 0.8637581800029577
steps: 198
              lr: 0.0001
                              evaluation reward: 1.85
episode: 916
               score: 0.0
                             memory length: 168931
                                                      epsilon: 0.863514640002963
steps: 123
              lr: 0.0001
                              evaluation reward: 1.83
                             memory length: 169130
episode: 917
                                                      epsilon: 0.8631206200029715
               score: 2.0
steps: 199
              lr: 0.0001
                              evaluation reward: 1.82
episode: 918
               score: 0.0
                             memory length: 169253
                                                      epsilon: 0.8628770800029768
                              evaluation reward: 1.81
steps: 123
              lr: 0.0001
                             memory length: 169375
episode: 919
                                                      epsilon: 0.862635520002982
               score: 0.0
              lr: 0.0001
                              evaluation reward: 1.79
steps: 122
episode: 920
               score: 0.0
                             memory length: 169497
                                                      epsilon: 0.8623939600029873
steps: 122
              lr: 0.0001
                              evaluation reward: 1.71
episode: 921
               score: 1.0
                             memory length: 169648
                                                      epsilon: 0.8620949800029938
steps: 151
              lr: 0.0001
                              evaluation reward: 1.69
episode: 922
                             memory length: 169771
                                                      epsilon: 0.8618514400029991
               score: 0.0
```

```
steps: 123
              lr: 0.0001
                              evaluation reward: 1.67
episode: 923
               score: 0.0
                             memory length: 169894
                                                      epsilon: 0.8616079000030044
steps: 123
                              evaluation reward: 1.67
              lr: 0.0001
               score: 1.0
episode: 924
                             memory length: 170066
                                                      epsilon: 0.8612673400030117
steps: 172
              lr: 0.0001
                              evaluation reward: 1.67
episode: 925
               score: 6.0
                             memory length: 170463
                                                      epsilon: 0.8604812800030288
steps: 397
              lr: 0.0001
                              evaluation reward: 1.71
episode: 926
               score: 0.0
                             memory length: 170585
                                                      epsilon: 0.8602397200030341
steps: 122
              lr: 0.0001
                              evaluation reward: 1.68
episode: 927
               score: 0.0
                             memory length: 170708
                                                      epsilon: 0.8599961800030393
steps: 123
              lr: 0.0001
                              evaluation reward: 1.66
episode: 928
               score: 3.0
                             memory length: 170955
                                                      epsilon: 0.85950712000305
                              evaluation reward: 1.65
steps: 247
              lr: 0.0001
episode: 929
               score: 0.0
                             memory length: 171077
                                                      epsilon: 0.8592655600030552
steps: 122
              lr: 0.0001
                              evaluation reward: 1.62
episode: 930
               score: 1.0
                             memory length: 171227
                                                      epsilon: 0.8589685600030617
steps: 150
              lr: 0.0001
                              evaluation reward: 1.61
episode: 931
               score: 3.0
                             memory length: 171453
                                                      epsilon: 0.8585210800030714
steps: 226
                              evaluation reward: 1.64
              lr: 0.0001
episode: 932
               score: 3.0
                             memory length: 171698
                                                      epsilon: 0.8580359800030819
                              evaluation reward: 1.67
steps: 245
              lr: 0.0001
episode: 933
               score: 2.0
                             memory length: 171920
                                                      epsilon: 0.8575964200030914
steps: 222
              lr: 0.0001
                              evaluation reward: 1.66
episode: 934
               score: 3.0
                             memory length: 172164
                                                      epsilon: 0.8571133000031019
steps: 244
              lr: 0.0001
                              evaluation reward: 1.68
episode: 935
                             memory length: 172286
               score: 0.0
                                                      epsilon: 0.8568717400031072
                              evaluation reward: 1.66
steps: 122
              lr: 0.0001
episode: 936
               score: 2.0
                             memory length: 172483
                                                      epsilon: 0.8564816800031156
steps: 197
              lr: 0.0001
                              evaluation reward: 1.66
episode: 937
                             memory length: 172606
                                                      epsilon: 0.8562381400031209
               score: 0.0
steps: 123
              lr: 0.0001
                              evaluation reward: 1.65
episode: 938
               score: 3.0
                             memory length: 172831
                                                      epsilon: 0.8557926400031306
steps: 225
              lr: 0.0001
                              evaluation reward: 1.65
episode: 939
               score: 3.0
                             memory length: 173077
                                                      epsilon: 0.8553055600031412
steps: 246
              lr: 0.0001
                              evaluation reward: 1.68
episode: 940
               score: 1.0
                             memory length: 173248
                                                      epsilon: 0.8549669800031485
steps: 171
              lr: 0.0001
                              evaluation reward: 1.66
                             memory length: 173494
episode: 941
                                                      epsilon: 0.8544799000031591
               score: 3.0
steps: 246
              lr: 0.0001
                              evaluation reward: 1.68
episode: 942
               score: 2.0
                             memory length: 173692
                                                      epsilon: 0.8540878600031676
                              evaluation reward: 1.69
steps: 198
              lr: 0.0001
episode: 943
                             memory length: 173864
                                                      epsilon: 0.853747300003175
               score: 1.0
                              evaluation reward: 1.68
steps: 172
              lr: 0.0001
episode: 944
               score: 3.0
                             memory length: 174112
                                                      epsilon: 0.8532562600031857
steps: 248
              lr: 0.0001
                              evaluation reward: 1.69
episode: 945
               score: 1.0
                             memory length: 174283
                                                      epsilon: 0.852917680003193
steps: 171
              lr: 0.0001
                              evaluation reward: 1.67
episode: 946
                             memory length: 174405
                                                      epsilon: 0.8526761200031983
               score: 0.0
```

```
steps: 122
              lr: 0.0001
                              evaluation reward: 1.67
episode: 947
               score: 2.0
                             memory length: 174602
                                                      epsilon: 0.8522860600032067
steps: 197
                              evaluation reward: 1.67
              lr: 0.0001
               score: 2.0
episode: 948
                             memory length: 174800
                                                      epsilon: 0.8518940200032152
steps: 198
              lr: 0.0001
                              evaluation reward: 1.66
episode: 949
               score: 0.0
                             memory length: 174922
                                                      epsilon: 0.8516524600032205
steps: 122
              lr: 0.0001
                              evaluation reward: 1.62
episode: 950
               score: 3.0
                             memory length: 175186
                                                      epsilon: 0.8511297400032318
steps: 264
              lr: 0.0001
                              evaluation reward: 1.65
episode: 951
               score: 0.0
                             memory length: 175308
                                                      epsilon: 0.8508881800032371
steps: 122
              lr: 0.0001
                              evaluation reward: 1.58
episode: 952
               score: 3.0
                             memory length: 175535
                                                      epsilon: 0.8504387200032468
steps: 227
                              evaluation reward: 1.59
              lr: 0.0001
episode: 953
               score: 0.0
                             memory length: 175658
                                                      epsilon: 0.8501951800032521
steps: 123
              lr: 0.0001
                              evaluation reward: 1.59
episode: 954
               score: 3.0
                             memory length: 175885
                                                      epsilon: 0.8497457200032619
steps: 227
              lr: 0.0001
                              evaluation reward: 1.6
episode: 955
               score: 1.0
                             memory length: 176054
                                                      epsilon: 0.8494111000032691
steps: 169
                              evaluation reward: 1.59
              lr: 0.0001
episode: 956
               score: 2.0
                             memory length: 176272
                                                      epsilon: 0.8489794600032785
steps: 218
              lr: 0.0001
                              evaluation reward: 1.59
episode: 957
               score: 3.0
                             memory length: 176539
                                                      epsilon: 0.84845080000329
steps: 267
              lr: 0.0001
                              evaluation reward: 1.61
                             memory length: 176764
episode: 958
               score: 3.0
                                                      epsilon: 0.8480053000032997
steps: 225
              lr: 0.0001
                              evaluation reward: 1.63
episode: 959
                             memory length: 176933
               score: 1.0
                                                      epsilon: 0.8476706800033069
                              evaluation reward: 1.63
steps: 169
              lr: 0.0001
episode: 960
               score: 1.0
                             memory length: 177083
                                                      epsilon: 0.8473736800033134
steps: 150
              lr: 0.0001
                              evaluation reward: 1.61
               score: 2.0
                             memory length: 177265
                                                      epsilon: 0.8470133200033212
episode: 961
steps: 182
              lr: 0.0001
                              evaluation reward: 1.61
                                                      epsilon: 0.8464312000033338
episode: 962
               score: 4.0
                             memory length: 177559
steps: 294
              lr: 0.0001
                              evaluation reward: 1.62
episode: 963
               score: 0.0
                             memory length: 177681
                                                      epsilon: 0.8461896400033391
steps: 122
              lr: 0.0001
                              evaluation reward: 1.6
episode: 964
               score: 1.0
                             memory length: 177852
                                                      epsilon: 0.8458510600033464
steps: 171
              lr: 0.0001
                              evaluation reward: 1.61
                             memory length: 178049
episode: 965
                                                      epsilon: 0.8454610000033549
               score: 2.0
steps: 197
              lr: 0.0001
                              evaluation reward: 1.61
episode: 966
               score: 1.0
                             memory length: 178218
                                                      epsilon: 0.8451263800033622
                              evaluation reward: 1.57
steps: 169
              lr: 0.0001
episode: 967
               score: 3.0
                             memory length: 178464
                                                      epsilon: 0.8446393000033727
                              evaluation reward: 1.57
steps: 246
              lr: 0.0001
episode: 968
               score: 3.0
                             memory length: 178710
                                                      epsilon: 0.8441522200033833
              lr: 0.0001
                              evaluation reward: 1.58
steps: 246
episode: 969
               score: 0.0
                             memory length: 178832
                                                      epsilon: 0.8439106600033885
steps: 122
              lr: 0.0001
                              evaluation reward: 1.56
episode: 970
                             memory length: 179029
                                                      epsilon: 0.843520600003397
               score: 2.0
```

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evaluation reward: 1.58
steps: 197
              lr: 0.0001
episode: 971
               score: 2.0
                             memory length: 179227
                                                      epsilon: 0.8431285600034055
steps: 198
                              evaluation reward: 1.58
              lr: 0.0001
episode: 972
               score: 0.0
                             memory length: 179349
                                                      epsilon: 0.8428870000034108
steps: 122
              lr: 0.0001
                              evaluation reward: 1.56
episode: 973
               score: 2.0
                             memory length: 179570
                                                      epsilon: 0.8424494200034203
steps: 221
              lr: 0.0001
                              evaluation reward: 1.58
episode: 974
               score: 2.0
                             memory length: 179767
                                                      epsilon: 0.8420593600034287
steps: 197
              lr: 0.0001
                              evaluation reward: 1.58
episode: 975
               score: 1.0
                             memory length: 179935
                                                      epsilon: 0.841726720003436
steps: 168
              lr: 0.0001
                              evaluation reward: 1.59
episode: 976
               score: 4.0
                             memory length: 180231
                                                      epsilon: 0.8411406400034487
                              evaluation reward: 1.63
steps: 296
              lr: 0.0001
episode: 977
               score: 0.0
                             memory length: 180354
                                                      epsilon: 0.840897100003454
steps: 123
              lr: 0.0001
                              evaluation reward: 1.61
episode: 978
               score: 1.0
                             memory length: 180523
                                                      epsilon: 0.8405624800034612
steps: 169
              lr: 0.0001
                              evaluation reward: 1.6
episode: 979
               score: 1.0
                             memory length: 180673
                                                      epsilon: 0.8402654800034677
                              evaluation reward: 1.61
steps: 150
              lr: 0.0001
episode: 980
               score: 2.0
                             memory length: 180871
                                                      epsilon: 0.8398734400034762
steps: 198
              lr: 0.0001
                              evaluation reward: 1.63
episode: 981
               score: 1.0
                             memory length: 181022
                                                      epsilon: 0.8395744600034827
steps: 151
              lr: 0.0001
                              evaluation reward: 1.61
                             memory length: 181348
episode: 982
               score: 5.0
                                                      epsilon: 0.8389289800034967
steps: 326
              lr: 0.0001
                              evaluation reward: 1.64
episode: 983
                             memory length: 181644
               score: 4.0
                                                      epsilon: 0.8383429000035094
                              evaluation reward: 1.67
steps: 296
              lr: 0.0001
episode: 984
               score: 2.0
                             memory length: 181841
                                                      epsilon: 0.8379528400035179
steps: 197
              lr: 0.0001
                              evaluation reward: 1.67
episode: 985
                             memory length: 181992
                                                      epsilon: 0.8376538600035244
               score: 1.0
steps: 151
              lr: 0.0001
                              evaluation reward: 1.67
episode: 986
               score: 2.0
                             memory length: 182208
                                                      epsilon: 0.8372261800035337
steps: 216
              lr: 0.0001
                              evaluation reward: 1.67
episode: 987
               score: 3.0
                             memory length: 182434
                                                      epsilon: 0.8367787000035434
steps: 226
              lr: 0.0001
                              evaluation reward: 1.67
episode: 988
               score: 2.0
                             memory length: 182632
                                                      epsilon: 0.8363866600035519
steps: 198
              lr: 0.0001
                              evaluation reward: 1.69
                             memory length: 182858
episode: 989
                                                      epsilon: 0.8359391800035616
               score: 3.0
steps: 226
              lr: 0.0001
                              evaluation reward: 1.7
episode: 990
               score: 2.0
                             memory length: 183057
                                                      epsilon: 0.8355451600035702
                              evaluation reward: 1.71
steps: 199
              lr: 0.0001
episode: 991
                             memory length: 183226
                                                      epsilon: 0.8352105400035774
               score: 1.0
                              evaluation reward: 1.72
steps: 169
              lr: 0.0001
episode: 992
               score: 2.0
                             memory length: 183447
                                                      epsilon: 0.8347729600035869
              lr: 0.0001
                              evaluation reward: 1.74
steps: 221
episode: 993
               score: 3.0
                             memory length: 183676
                                                      epsilon: 0.8343195400035968
steps: 229
              lr: 0.0001
                              evaluation reward: 1.73
episode: 994
                             memory length: 183799
                                                      epsilon: 0.834076000003602
               score: 0.0
```

```
lr: 0.0001
                              evaluation reward: 1.72
steps: 123
episode: 995
               score: 3.0
                             memory length: 184070
                                                     epsilon: 0.8335394200036137
steps: 271
              lr: 0.0001
                              evaluation reward: 1.73
               score: 4.0
episode: 996
                             memory length: 184346
                                                     epsilon: 0.8329929400036256
steps: 276
              lr: 0.0001
                              evaluation reward: 1.75
episode: 997
               score: 1.0
                             memory length: 184517
                                                     epsilon: 0.8326543600036329
steps: 171
              lr: 0.0001
                              evaluation reward: 1.74
episode: 998
               score: 4.0
                             memory length: 184809
                                                     epsilon: 0.8320762000036455
                              evaluation reward: 1.75
steps: 292
              lr: 0.0001
episode: 999
               score: 1.0
                             memory length: 184981
                                                     epsilon: 0.8317356400036529
steps: 172
              lr: 0.0001
                              evaluation reward: 1.74
episode: 1000
                score: 1.0
                              memory length: 185150
                                                      epsilon: 0.8314010200036601
steps: 169
                              evaluation reward: 1.73
              lr: 0.0001
episode: 1001
                score: 0.0
                              memory length: 185272
                                                      epsilon: 0.8311594600036654
steps: 122
              lr: 0.0001
                              evaluation reward: 1.73
                             memory length: 185395
                                                      epsilon: 0.8309159200036706
episode: 1002
                score: 0.0
steps: 123
              lr: 0.0001
                              evaluation reward: 1.7
episode: 1003
                score: 2.0
                             memory length: 185592
                                                      epsilon: 0.8305258600036791
steps: 197
              lr: 0.0001
                              evaluation reward: 1.7
episode: 1004
                score: 3.0
                             memory length: 185856
                                                      epsilon: 0.8300031400036905
steps: 264
              lr: 0.0001
                              evaluation reward: 1.73
                             memory length: 186056
episode: 1005
                score: 2.0
                                                      epsilon: 0.8296071400036991
steps: 200
              lr: 0.0001
                              evaluation reward: 1.74
                             memory length: 186301
                                                      epsilon: 0.8291220400037096
episode: 1006
                score: 3.0
steps: 245
              lr: 0.0001
                              evaluation reward: 1.77
episode: 1007
                score: 3.0
                             memory length: 186526
                                                      epsilon: 0.8286765400037193
steps: 225
              lr: 0.0001
                              evaluation reward: 1.78
episode: 1008
                score: 2.0
                              memory length: 186744
                                                      epsilon: 0.8282449000037286
steps: 218
              lr: 0.0001
                              evaluation reward: 1.78
episode: 1009
                score: 2.0
                             memory length: 186942
                                                      epsilon: 0.8278528600037371
              lr: 0.0001
steps: 198
                              evaluation reward: 1.77
episode: 1010
                score: 3.0
                             memory length: 187189
                                                      epsilon: 0.8273638000037478
steps: 247
              lr: 0.0001
                              evaluation reward: 1.77
episode: 1011
                score: 2.0
                             memory length: 187386
                                                      epsilon: 0.8269737400037562
                              evaluation reward: 1.76
steps: 197
              lr: 0.0001
episode: 1012
                score: 1.0
                             memory length: 187536
                                                      epsilon: 0.8266767400037627
steps: 150
              lr: 0.0001
                              evaluation reward: 1.73
episode: 1013
                score: 0.0
                             memory length: 187659
                                                      epsilon: 0.826433200003768
steps: 123
              lr: 0.0001
                              evaluation reward: 1.72
episode: 1014
                score: 1.0
                             memory length: 187809
                                                      epsilon: 0.8261362000037744
              lr: 0.0001
                              evaluation reward: 1.72
steps: 150
                              memory length: 188034
episode: 1015
                score: 3.0
                                                      epsilon: 0.8256907000037841
steps: 225
              lr: 0.0001
                              evaluation reward: 1.73
episode: 1016
                score: 1.0
                             memory length: 188185
                                                      epsilon: 0.8253917200037906
steps: 151
              lr: 0.0001
                              evaluation reward: 1.74
episode: 1017
                score: 3.0
                             memory length: 188434
                                                      epsilon: 0.8248987000038013
steps: 249
              lr: 0.0001
                              evaluation reward: 1.75
episode: 1018
                             memory length: 188634
                                                      epsilon: 0.8245027000038099
                score: 2.0
```

```
lr: 0.0001
                              evaluation reward: 1.77
steps: 200
episode: 1019
                score: 2.0
                             memory length: 188831
                                                      epsilon: 0.8241126400038183
steps: 197
              lr: 0.0001
                              evaluation reward: 1.79
                score: 3.0
                             memory length: 189062
episode: 1020
                                                      epsilon: 0.8236552600038283
steps: 231
              lr: 0.0001
                              evaluation reward: 1.82
episode: 1021
                score: 1.0
                             memory length: 189213
                                                      epsilon: 0.8233562800038348
steps: 151
              lr: 0.0001
                              evaluation reward: 1.82
episode: 1022
                score: 4.0
                             memory length: 189490
                                                      epsilon: 0.8228078200038467
              lr: 0.0001
                              evaluation reward: 1.86
steps: 277
episode: 1023
                score: 0.0
                             memory length: 189613
                                                      epsilon: 0.822564280003852
steps: 123
              lr: 0.0001
                              evaluation reward: 1.86
episode: 1024
                score: 4.0
                              memory length: 189905
                                                      epsilon: 0.8219861200038645
steps: 292
              lr: 0.0001
                              evaluation reward: 1.89
episode: 1025
                score: 4.0
                              memory length: 190179
                                                      epsilon: 0.8214436000038763
steps: 274
              lr: 0.0001
                              evaluation reward: 1.87
                             memory length: 190377
                                                      epsilon: 0.8210515600038848
episode: 1026
                score: 2.0
steps: 198
              lr: 0.0001
                              evaluation reward: 1.89
episode: 1027
                score: 3.0
                             memory length: 190646
                                                      epsilon: 0.8205189400038964
steps: 269
              lr: 0.0001
                              evaluation reward: 1.92
episode: 1028
                score: 0.0
                             memory length: 190769
                                                      epsilon: 0.8202754000039016
              lr: 0.0001
steps: 123
                              evaluation reward: 1.89
                             memory length: 190987
episode: 1029
                score: 2.0
                                                      epsilon: 0.819843760003911
steps: 218
              lr: 0.0001
                              evaluation reward: 1.91
                             memory length: 191109
                                                      epsilon: 0.8196022000039163
episode: 1030
                score: 0.0
steps: 122
              lr: 0.0001
                              evaluation reward: 1.9
                             memory length: 191404
episode: 1031
                score: 4.0
                                                      epsilon: 0.8190181000039289
                              evaluation reward: 1.91
steps: 295
              lr: 0.0001
episode: 1032
                score: 3.0
                              memory length: 191649
                                                      epsilon: 0.8185330000039395
steps: 245
              lr: 0.0001
                              evaluation reward: 1.91
episode: 1033
                score: 2.0
                             memory length: 191866
                                                      epsilon: 0.8181033400039488
steps: 217
              lr: 0.0001
                              evaluation reward: 1.91
episode: 1034
                score: 3.0
                             memory length: 192135
                                                      epsilon: 0.8175707200039604
steps: 269
              lr: 0.0001
                              evaluation reward: 1.91
episode: 1035
                score: 0.0
                             memory length: 192257
                                                      epsilon: 0.8173291600039656
                              evaluation reward: 1.91
steps: 122
              lr: 0.0001
                                                      epsilon: 0.8168163400039767
episode: 1036
                score: 4.0
                             memory length: 192516
steps: 259
              lr: 0.0001
                              evaluation reward: 1.93
episode: 1037
                score: 2.0
                             memory length: 192734
                                                      epsilon: 0.8163847000039861
                              evaluation reward: 1.95
steps: 218
              lr: 0.0001
                             memory length: 193114
episode: 1038
                score: 6.0
                                                      epsilon: 0.8156323000040024
              lr: 0.0001
                              evaluation reward: 1.98
steps: 380
                              memory length: 193236
                                                      epsilon: 0.8153907400040077
episode: 1039
                score: 0.0
steps: 122
              lr: 0.0001
                              evaluation reward: 1.95
                                                      epsilon: 0.8148997000040183
episode: 1040
                score: 3.0
                             memory length: 193484
steps: 248
              lr: 0.0001
                              evaluation reward: 1.97
episode: 1041
                score: 2.0
                             memory length: 193682
                                                      epsilon: 0.8145076600040269
steps: 198
              lr: 0.0001
                              evaluation reward: 1.96
episode: 1042
                score: 4.0
                             memory length: 193998
                                                      epsilon: 0.8138819800040404
```

```
lr: 0.0001
                              evaluation reward: 1.98
steps: 316
episode: 1043
                score: 0.0
                             memory length: 194121
                                                      epsilon: 0.8136384400040457
steps: 123
              lr: 0.0001
                              evaluation reward: 1.97
episode: 1044
                score: 1.0
                             memory length: 194290
                                                      epsilon: 0.813303820004053
steps: 169
              lr: 0.0001
                              evaluation reward: 1.95
episode: 1045
                score: 3.0
                             memory length: 194516
                                                      epsilon: 0.8128563400040627
steps: 226
              lr: 0.0001
                              evaluation reward: 1.97
episode: 1046
                score: 2.0
                             memory length: 194714
                                                      epsilon: 0.8124643000040712
                              evaluation reward: 1.99
steps: 198
              lr: 0.0001
episode: 1047
                score: 4.0
                             memory length: 194989
                                                      epsilon: 0.811919800004083
steps: 275
              lr: 0.0001
                              evaluation reward: 2.01
episode: 1048
                score: 1.0
                              memory length: 195140
                                                      epsilon: 0.8116208200040895
steps: 151
              lr: 0.0001
                              evaluation reward: 2.0
episode: 1049
                score: 1.0
                              memory length: 195291
                                                      epsilon: 0.811321840004096
steps: 151
              lr: 0.0001
                              evaluation reward: 2.01
                             memory length: 195537
                                                      epsilon: 0.8108347600041066
episode: 1050
                score: 3.0
steps: 246
              lr: 0.0001
                              evaluation reward: 2.01
episode: 1051
                score: 2.0
                             memory length: 195734
                                                      epsilon: 0.8104447000041151
steps: 197
              lr: 0.0001
                              evaluation reward: 2.03
episode: 1052
                score: 4.0
                             memory length: 196029
                                                      epsilon: 0.8098606000041277
steps: 295
              lr: 0.0001
                              evaluation reward: 2.04
                             memory length: 196227
episode: 1053
                score: 2.0
                                                      epsilon: 0.8094685600041363
steps: 198
              lr: 0.0001
                              evaluation reward: 2.06
                             memory length: 196448
                                                      epsilon: 0.8090309800041457
episode: 1054
                score: 2.0
steps: 221
              lr: 0.0001
                              evaluation reward: 2.05
episode: 1055
                score: 1.0
                             memory length: 196616
                                                      epsilon: 0.808698340004153
                              evaluation reward: 2.05
steps: 168
              lr: 0.0001
episode: 1056
                score: 2.0
                              memory length: 196816
                                                      epsilon: 0.8083023400041616
steps: 200
              lr: 0.0001
                              evaluation reward: 2.05
episode: 1057
                score: 4.0
                             memory length: 197082
                                                      epsilon: 0.807775660004173
steps: 266
              lr: 0.0001
                              evaluation reward: 2.06
episode: 1058
                score: 2.0
                             memory length: 197279
                                                      epsilon: 0.8073856000041815
steps: 197
              lr: 0.0001
                              evaluation reward: 2.05
episode: 1059
                score: 2.0
                             memory length: 197476
                                                      epsilon: 0.8069955400041899
                              evaluation reward: 2.06
steps: 197
              lr: 0.0001
                                                      epsilon: 0.8066035000041984
episode: 1060
                score: 2.0
                             memory length: 197674
steps: 198
              lr: 0.0001
                              evaluation reward: 2.07
episode: 1061
                score: 0.0
                             memory length: 197797
                                                      epsilon: 0.8063599600042037
steps: 123
              lr: 0.0001
                              evaluation reward: 2.05
episode: 1062
                score: 2.0
                             memory length: 197995
                                                      epsilon: 0.8059679200042122
steps: 198
              lr: 0.0001
                              evaluation reward: 2.03
episode: 1063
                              memory length: 198252
                score: 4.0
                                                      epsilon: 0.8054590600042233
steps: 257
              lr: 0.0001
                              evaluation reward: 2.07
episode: 1064
                score: 3.0
                             memory length: 198478
                                                      epsilon: 0.805011580004233
steps: 226
              lr: 0.0001
                              evaluation reward: 2.09
episode: 1065
                score: 2.0
                             memory length: 198679
                                                      epsilon: 0.8046136000042416
steps: 201
              lr: 0.0001
                              evaluation reward: 2.09
episode: 1066
                             memory length: 198802
                                                      epsilon: 0.8043700600042469
                score: 0.0
```

```
lr: 0.0001
                              evaluation reward: 2.08
steps: 123
episode: 1067
                score: 4.0
                             memory length: 199117
                                                      epsilon: 0.8037463600042605
steps: 315
              lr: 0.0001
                              evaluation reward: 2.09
                score: 2.0
                             memory length: 199315
episode: 1068
                                                      epsilon: 0.803354320004269
steps: 198
              lr: 0.0001
                              evaluation reward: 2.08
episode: 1069
                             memory length: 199562
                score: 3.0
                                                      epsilon: 0.8028652600042796
steps: 247
              lr: 0.0001
                              evaluation reward: 2.11
episode: 1070
                score: 5.0
                             memory length: 199863
                                                      epsilon: 0.8022692800042925
              lr: 0.0001
                              evaluation reward: 2.14
steps: 301
episode: 1071
                score: 3.0
                             memory length: 200088
                                                      epsilon: 0.8018237800043022
steps: 225
              lr: 0.0001
                              evaluation reward: 2.15
episode: 1072
                score: 2.0
                              memory length: 200285
                                                      epsilon: 0.8014337200043107
steps: 197
              lr: 0.0001
                              evaluation reward: 2.17
episode: 1073
                score: 1.0
                              memory length: 200456
                                                      epsilon: 0.801095140004318
steps: 171
              lr: 0.0001
                              evaluation reward: 2.16
                             memory length: 200733
                                                      epsilon: 0.8005466800043299
episode: 1074
                score: 4.0
steps: 277
              lr: 0.0001
                              evaluation reward: 2.18
episode: 1075
                score: 2.0
                             memory length: 200931
                                                      epsilon: 0.8001546400043384
steps: 198
              lr: 0.0001
                              evaluation reward: 2.19
episode: 1076
                score: 2.0
                             memory length: 201148
                                                      epsilon: 0.7997249800043478
                              evaluation reward: 2.17
steps: 217
              lr: 0.0001
                             memory length: 201271
episode: 1077
                score: 0.0
                                                      epsilon: 0.7994814400043531
steps: 123
              lr: 0.0001
                              evaluation reward: 2.17
                             memory length: 201517
                                                      epsilon: 0.7989943600043636
episode: 1078
                score: 3.0
steps: 246
              lr: 0.0001
                              evaluation reward: 2.19
                             memory length: 201714
episode: 1079
                score: 2.0
                                                      epsilon: 0.7986043000043721
steps: 197
                              evaluation reward: 2.2
              lr: 0.0001
episode: 1080
                score: 1.0
                              memory length: 201885
                                                      epsilon: 0.7982657200043795
steps: 171
              lr: 0.0001
                              evaluation reward: 2.19
episode: 1081
                score: 1.0
                             memory length: 202057
                                                      epsilon: 0.7979251600043868
steps: 172
              lr: 0.0001
                              evaluation reward: 2.19
episode: 1082
                score: 3.0
                             memory length: 202283
                                                      epsilon: 0.7974776800043966
steps: 226
              lr: 0.0001
                              evaluation reward: 2.17
episode: 1083
                score: 3.0
                             memory length: 202508
                                                      epsilon: 0.7970321800044062
                              evaluation reward: 2.16
steps: 225
              lr: 0.0001
episode: 1084
                score: 0.0
                             memory length: 202630
                                                      epsilon: 0.7967906200044115
steps: 122
              lr: 0.0001
                              evaluation reward: 2.14
episode: 1085
                score: 5.0
                             memory length: 202974
                                                      epsilon: 0.7961095000044263
steps: 344
              lr: 0.0001
                              evaluation reward: 2.18
episode: 1086
                score: 2.0
                             memory length: 203191
                                                      epsilon: 0.7956798400044356
steps: 217
              lr: 0.0001
                              evaluation reward: 2.18
                              memory length: 203408
episode: 1087
                score: 2.0
                                                      epsilon: 0.7952501800044449
steps: 217
              lr: 0.0001
                              evaluation reward: 2.17
                                                      epsilon: 0.7948601200044534
episode: 1088
                score: 2.0
                             memory length: 203605
steps: 197
              lr: 0.0001
                              evaluation reward: 2.17
episode: 1089
                score: 1.0
                             memory length: 203756
                                                      epsilon: 0.7945611400044599
steps: 151
              lr: 0.0001
                              evaluation reward: 2.15
episode: 1090
                             memory length: 204071
                                                      epsilon: 0.7939374400044734
                score: 4.0
```

```
lr: 0.0001
                              evaluation reward: 2.17
steps: 315
episode: 1091
                score: 2.0
                             memory length: 204269
                                                      epsilon: 0.7935454000044819
steps: 198
              lr: 0.0001
                              evaluation reward: 2.18
episode: 1092
                score: 4.0
                             memory length: 204566
                                                      epsilon: 0.7929573400044947
steps: 297
              lr: 0.0001
                              evaluation reward: 2.2
episode: 1093
                score: 3.0
                             memory length: 204811
                                                      epsilon: 0.7924722400045052
                              evaluation reward: 2.2
steps: 245
              lr: 0.0001
episode: 1094
                score: 5.0
                             memory length: 205137
                                                      epsilon: 0.7918267600045192
              lr: 0.0001
                              evaluation reward: 2.25
steps: 326
episode: 1095
                score: 3.0
                             memory length: 205363
                                                      epsilon: 0.791379280004529
steps: 226
              lr: 0.0001
                              evaluation reward: 2.25
episode: 1096
                score: 3.0
                              memory length: 205590
                                                      epsilon: 0.7909298200045387
steps: 227
              lr: 0.0001
                              evaluation reward: 2.24
episode: 1097
                score: 4.0
                              memory length: 205864
                                                      epsilon: 0.7903873000045505
steps: 274
              lr: 0.0001
                              evaluation reward: 2.27
                             memory length: 206082
                                                      epsilon: 0.7899556600045599
episode: 1098
                score: 2.0
steps: 218
              lr: 0.0001
                              evaluation reward: 2.25
episode: 1099
                score: 3.0
                             memory length: 206308
                                                      epsilon: 0.7895081800045696
steps: 226
              lr: 0.0001
                              evaluation reward: 2.27
episode: 1100
                score: 4.0
                             memory length: 206587
                                                      epsilon: 0.7889557600045816
steps: 279
              lr: 0.0001
                              evaluation reward: 2.3
                             memory length: 206866
episode: 1101
                score: 4.0
                                                      epsilon: 0.7884033400045936
steps: 279
              lr: 0.0001
                              evaluation reward: 2.34
                             memory length: 207036
                                                      epsilon: 0.7880667400046009
episode: 1102
                score: 1.0
steps: 170
              lr: 0.0001
                              evaluation reward: 2.35
episode: 1103
                score: 0.0
                             memory length: 207159
                                                      epsilon: 0.7878232000046062
steps: 123
              lr: 0.0001
                              evaluation reward: 2.33
episode: 1104
                score: 4.0
                              memory length: 207473
                                                      epsilon: 0.7872014800046196
                              evaluation reward: 2.34
steps: 314
              lr: 0.0001
episode: 1105
                score: 3.0
                             memory length: 207743
                                                      epsilon: 0.7866668800046313
steps: 270
              lr: 0.0001
                              evaluation reward: 2.35
episode: 1106
                score: 4.0
                             memory length: 208021
                                                      epsilon: 0.7861164400046432
steps: 278
              lr: 0.0001
                              evaluation reward: 2.36
episode: 1107
                score: 3.0
                             memory length: 208246
                                                      epsilon: 0.7856709400046529
                              evaluation reward: 2.36
steps: 225
              lr: 0.0001
                                                      epsilon: 0.7851026800046652
episode: 1108
                score: 4.0
                             memory length: 208533
steps: 287
              lr: 0.0001
                              evaluation reward: 2.38
episode: 1109
                score: 2.0
                             memory length: 208730
                                                      epsilon: 0.7847126200046737
steps: 197
              lr: 0.0001
                              evaluation reward: 2.38
episode: 1110
                score: 1.0
                             memory length: 208880
                                                      epsilon: 0.7844156200046801
steps: 150
              lr: 0.0001
                              evaluation reward: 2.36
                              memory length: 209145
episode: 1111
                score: 4.0
                                                      epsilon: 0.7838909200046915
steps: 265
              lr: 0.0001
                              evaluation reward: 2.38
                                                      epsilon: 0.7833068200047042
episode: 1112
                score: 4.0
                             memory length: 209440
steps: 295
              lr: 0.0001
                              evaluation reward: 2.41
episode: 1113
                score: 2.0
                             memory length: 209619
                                                      epsilon: 0.7829524000047119
steps: 179
              lr: 0.0001
                              evaluation reward: 2.43
episode: 1114
                             memory length: 209866
                                                      epsilon: 0.7824633400047225
                score: 3.0
```

```
steps: 247
              lr: 0.0001
                             evaluation reward: 2.45
episode: 1115
                score: 2.0
                             memory length: 210045
                                                      epsilon: 0.7821089200047302
steps: 179
              lr: 0.0001
                             evaluation reward: 2.44
episode: 1116
                score: 1.0
                             memory length: 210195
                                                      epsilon: 0.7818119200047366
                              evaluation reward: 2.44
steps: 150
              lr: 0.0001
episode: 1117
                score: 0.0
                             memory length: 210317
                                                      epsilon: 0.7815703600047419
steps: 122
              lr: 0.0001
                             evaluation reward: 2.41
episode: 1118
                score: 2.0
                             memory length: 210517
                                                      epsilon: 0.7811743600047505
              lr: 0.0001
                             evaluation reward: 2.41
steps: 200
episode: 1119
                score: 3.0
                             memory length: 210743
                                                      epsilon: 0.7807268800047602
steps: 226
              lr: 0.0001
                             evaluation reward: 2.42
                             memory length: 210940
episode: 1120
                score: 2.0
                                                      epsilon: 0.7803368200047687
steps: 197
              lr: 0.0001
                             evaluation reward: 2.41
                             memory length: 211236
episode: 1121
                score: 4.0
                                                      epsilon: 0.7797507400047814
steps: 296
              lr: 0.0001
                             evaluation reward: 2.44
                score: 4.0
                             memory length: 211531
                                                      epsilon: 0.7791666400047941
episode: 1122
steps: 295
              lr: 0.0001
                             evaluation reward: 2.44
episode: 1123
                score: 0.0
                             memory length: 211653
                                                      epsilon: 0.7789250800047993
steps: 122
              lr: 0.0001
                             evaluation reward: 2.44
episode: 1124
                score: 4.0
                             memory length: 211928
                                                      epsilon: 0.7783805800048111
              lr: 0.0001
                             evaluation reward: 2.44
steps: 275
                             memory length: 212107
episode: 1125
                score: 2.0
                                                      epsilon: 0.7780261600048188
steps: 179
              lr: 0.0001
                             evaluation reward: 2.42
                             memory length: 212382
                                                      epsilon: 0.7774816600048307
episode: 1126
                score: 4.0
steps: 275
              lr: 0.0001
                             evaluation reward: 2.44
                             memory length: 212610
episode: 1127
                score: 3.0
                                                      epsilon: 0.7770302200048405
                             evaluation reward: 2.44
steps: 228
              lr: 0.0001
episode: 1128
                score: 4.0
                             memory length: 212905
                                                      epsilon: 0.7764461200048531
steps: 295
              lr: 0.0001
                             evaluation reward: 2.48
episode: 1129
                score: 2.0
                             memory length: 213102
                                                      epsilon: 0.7760560600048616
steps: 197
              lr: 0.0001
                             evaluation reward: 2.48
episode: 1130
                score: 5.0
                             memory length: 213428
                                                      epsilon: 0.7754105800048756
steps: 326
              lr: 0.0001
                             evaluation reward: 2.53
episode: 1131
                score: 0.0
                             memory length: 213550
                                                      epsilon: 0.7751690200048809
              lr: 0.0001
                             evaluation reward: 2.49
steps: 122
episode: 1132
                score: 0.0
                             memory length: 213673
                                                      epsilon: 0.7749254800048861
                              evaluation reward: 2.46
steps: 123
              lr: 0.0001
episode: 1133
                score: 0.0
                             memory length: 213796
                                                      epsilon: 0.7746819400048914
                             evaluation reward: 2.44
steps: 123
              lr: 0.0001
                             memory length: 213947
episode: 1134
                score: 1.0
                                                      epsilon: 0.7743829600048979
steps: 151
              lr: 0.0001
                             evaluation reward: 2.42
                             memory length: 214149
                                                      epsilon: 0.7739830000049066
episode: 1135
                score: 2.0
steps: 202
              lr: 0.0001
                             evaluation reward: 2.44
                                                      epsilon: 0.7735612600049158
episode: 1136
                score: 3.0
                             memory length: 214362
steps: 213
              lr: 0.0001
                             evaluation reward: 2.43
episode: 1137
                score: 2.0
                             memory length: 214559
                                                      epsilon: 0.7731712000049242
steps: 197
              lr: 0.0001
                             evaluation reward: 2.43
episode: 1138
                             memory length: 214728
                                                      epsilon: 0.7728365800049315
                score: 1.0
```

```
lr: 0.0001
                              evaluation reward: 2.38
steps: 169
episode: 1139
                score: 0.0
                             memory length: 214850
                                                      epsilon: 0.7725950200049367
steps: 122
              lr: 0.0001
                              evaluation reward: 2.38
episode: 1140
                score: 2.0
                             memory length: 215047
                                                      epsilon: 0.7722049600049452
steps: 197
              lr: 0.0001
                              evaluation reward: 2.37
episode: 1141
                score: 2.0
                             memory length: 215244
                                                      epsilon: 0.7718149000049537
steps: 197
              lr: 0.0001
                              evaluation reward: 2.37
episode: 1142
                score: 0.0
                             memory length: 215367
                                                      epsilon: 0.771571360004959
              lr: 0.0001
                              evaluation reward: 2.33
steps: 123
episode: 1143
                score: 2.0
                             memory length: 215584
                                                      epsilon: 0.7711417000049683
steps: 217
              lr: 0.0001
                              evaluation reward: 2.35
episode: 1144
                score: 2.0
                              memory length: 215781
                                                      epsilon: 0.7707516400049768
steps: 197
              lr: 0.0001
                              evaluation reward: 2.36
episode: 1145
                score: 2.0
                              memory length: 215978
                                                      epsilon: 0.7703615800049852
steps: 197
              lr: 0.0001
                              evaluation reward: 2.35
                             memory length: 216100
                                                      epsilon: 0.7701200200049905
episode: 1146
                score: 0.0
steps: 122
              lr: 0.0001
                              evaluation reward: 2.33
episode: 1147
                score: 3.0
                             memory length: 216343
                                                      epsilon: 0.7696388800050009
steps: 243
              lr: 0.0001
                              evaluation reward: 2.32
episode: 1148
                score: 2.0
                             memory length: 216541
                                                      epsilon: 0.7692468400050094
steps: 198
                              evaluation reward: 2.33
              lr: 0.0001
                             memory length: 216739
episode: 1149
                score: 2.0
                                                      epsilon: 0.7688548000050179
steps: 198
              lr: 0.0001
                              evaluation reward: 2.34
                             memory length: 216967
                                                      epsilon: 0.7684033600050277
episode: 1150
                score: 3.0
steps: 228
              lr: 0.0001
                              evaluation reward: 2.34
episode: 1151
                score: 2.0
                             memory length: 217165
                                                      epsilon: 0.7680113200050362
steps: 198
                              evaluation reward: 2.34
              lr: 0.0001
episode: 1152
                score: 5.0
                             memory length: 217467
                                                      epsilon: 0.7674133600050492
                              evaluation reward: 2.35
steps: 302
              lr: 0.0001
episode: 1153
                score: 1.0
                             memory length: 217617
                                                      epsilon: 0.7671163600050557
steps: 150
              lr: 0.0001
                              evaluation reward: 2.34
episode: 1154
                score: 1.0
                             memory length: 217787
                                                      epsilon: 0.766779760005063
steps: 170
              lr: 0.0001
                              evaluation reward: 2.33
episode: 1155
                score: 4.0
                             memory length: 218099
                                                      epsilon: 0.7661620000050764
                              evaluation reward: 2.36
steps: 312
              lr: 0.0001
episode: 1156
                score: 0.0
                             memory length: 218221
                                                      epsilon: 0.7659204400050816
steps: 122
              lr: 0.0001
                              evaluation reward: 2.34
episode: 1157
                score: 2.0
                             memory length: 218421
                                                      epsilon: 0.7655244400050902
steps: 200
              lr: 0.0001
                              evaluation reward: 2.32
episode: 1158
                score: 3.0
                             memory length: 218667
                                                      epsilon: 0.7650373600051008
steps: 246
              lr: 0.0001
                              evaluation reward: 2.33
                              memory length: 218893
episode: 1159
                score: 3.0
                                                      epsilon: 0.7645898800051105
steps: 226
              lr: 0.0001
                              evaluation reward: 2.34
episode: 1160
                score: 3.0
                             memory length: 219105
                                                      epsilon: 0.7641701200051196
steps: 212
              lr: 0.0001
                              evaluation reward: 2.35
episode: 1161
                score: 3.0
                             memory length: 219331
                                                      epsilon: 0.7637226400051293
steps: 226
              lr: 0.0001
                              evaluation reward: 2.38
episode: 1162
                             memory length: 219552
                                                      epsilon: 0.7632850600051388
                score: 2.0
```

```
lr: 0.0001
                             evaluation reward: 2.38
steps: 221
episode: 1163
                score: 2.0
                             memory length: 219750
                                                      epsilon: 0.7628930200051474
steps: 198
              lr: 0.0001
                             evaluation reward: 2.36
episode: 1164
                score: 4.0
                             memory length: 220048
                                                      epsilon: 0.7623029800051602
steps: 298
              lr: 0.0001
                             evaluation reward: 2.37
episode: 1165
                score: 5.0
                             memory length: 220375
                                                      epsilon: 0.7616555200051742
                             evaluation reward: 2.4
steps: 327
              lr: 0.0001
episode: 1166
                score: 1.0
                             memory length: 220525
                                                      epsilon: 0.7613585200051807
              lr: 0.0001
                             evaluation reward: 2.41
steps: 150
episode: 1167
                score: 1.0
                             memory length: 220693
                                                      epsilon: 0.7610258800051879
steps: 168
              lr: 0.0001
                             evaluation reward: 2.38
episode: 1168
                score: 8.0
                             memory length: 221137
                                                      epsilon: 0.760146760005207
steps: 444
              lr: 0.0001
                             evaluation reward: 2.44
episode: 1169
                score: 2.0
                             memory length: 221335
                                                      epsilon: 0.7597547200052155
steps: 198
              lr: 0.0001
                             evaluation reward: 2.43
                score: 0.0
                             memory length: 221458
                                                      epsilon: 0.7595111800052208
episode: 1170
steps: 123
              lr: 0.0001
                             evaluation reward: 2.38
episode: 1171
                score: 2.0
                             memory length: 221674
                                                      epsilon: 0.7590835000052301
steps: 216
              lr: 0.0001
                             evaluation reward: 2.37
episode: 1172
                score: 4.0
                             memory length: 221946
                                                      epsilon: 0.7585449400052418
              lr: 0.0001
                             evaluation reward: 2.39
steps: 272
                             memory length: 222174
episode: 1173
                score: 3.0
                                                      epsilon: 0.7580935000052516
steps: 228
              lr: 0.0001
                             evaluation reward: 2.41
                             memory length: 222418
                                                      epsilon: 0.757610380005262
episode: 1174
                score: 3.0
steps: 244
              lr: 0.0001
                             evaluation reward: 2.4
episode: 1175
                score: 3.0
                             memory length: 222662
                                                      epsilon: 0.7571272600052725
steps: 244
                             evaluation reward: 2.41
              lr: 0.0001
episode: 1176
                score: 2.0
                             memory length: 222860
                                                      epsilon: 0.756735220005281
steps: 198
              lr: 0.0001
                             evaluation reward: 2.41
episode: 1177
                score: 2.0
                             memory length: 223057
                                                      epsilon: 0.7563451600052895
steps: 197
              lr: 0.0001
                             evaluation reward: 2.43
episode: 1178
                score: 2.0
                             memory length: 223275
                                                      epsilon: 0.7559135200052989
steps: 218
              lr: 0.0001
                             evaluation reward: 2.42
episode: 1179
                score: 2.0
                             memory length: 223473
                                                      epsilon: 0.7555214800053074
                             evaluation reward: 2.42
steps: 198
              lr: 0.0001
                                                      epsilon: 0.7550858800053168
episode: 1180
                score: 2.0
                             memory length: 223693
steps: 220
              lr: 0.0001
                              evaluation reward: 2.43
episode: 1181
                score: 4.0
                             memory length: 223969
                                                      epsilon: 0.7545394000053287
steps: 276
              lr: 0.0001
                             evaluation reward: 2.46
episode: 1182
                score: 2.0
                             memory length: 224166
                                                      epsilon: 0.7541493400053372
steps: 197
              lr: 0.0001
                             evaluation reward: 2.45
                             memory length: 224509
episode: 1183
                score: 5.0
                                                      epsilon: 0.7534702000053519
steps: 343
              lr: 0.0001
                             evaluation reward: 2.47
                                                      epsilon: 0.7529870800053624
episode: 1184
                score: 3.0
                             memory length: 224753
steps: 244
              lr: 0.0001
                             evaluation reward: 2.5
episode: 1185
                score: 2.0
                             memory length: 224971
                                                      epsilon: 0.7525554400053718
steps: 218
              lr: 0.0001
                             evaluation reward: 2.47
episode: 1186
                             memory length: 225198
                                                      epsilon: 0.7521059800053815
                score: 3.0
```

```
lr: 0.0001
                              evaluation reward: 2.48
steps: 227
episode: 1187
                score: 3.0
                             memory length: 225423
                                                      epsilon: 0.7516604800053912
steps: 225
              lr: 0.0001
                              evaluation reward: 2.49
episode: 1188
                score: 5.0
                             memory length: 225746
                                                      epsilon: 0.7510209400054051
steps: 323
              lr: 0.0001
                              evaluation reward: 2.52
episode: 1189
                score: 3.0
                             memory length: 225995
                                                      epsilon: 0.7505279200054158
                              evaluation reward: 2.54
steps: 249
              lr: 0.0001
episode: 1190
                score: 1.0
                             memory length: 226166
                                                      epsilon: 0.7501893400054231
              lr: 0.0001
                              evaluation reward: 2.51
steps: 171
episode: 1191
                score: 0.0
                             memory length: 226289
                                                      epsilon: 0.7499458000054284
steps: 123
              lr: 0.0001
                              evaluation reward: 2.49
episode: 1192
                score: 2.0
                              memory length: 226486
                                                      epsilon: 0.7495557400054369
steps: 197
              lr: 0.0001
                              evaluation reward: 2.47
episode: 1193
                score: 2.0
                              memory length: 226684
                                                      epsilon: 0.7491637000054454
steps: 198
              lr: 0.0001
                              evaluation reward: 2.46
                             memory length: 226902
                                                      epsilon: 0.7487320600054548
episode: 1194
                score: 2.0
steps: 218
              lr: 0.0001
                              evaluation reward: 2.43
episode: 1195
                score: 3.0
                             memory length: 227128
                                                      epsilon: 0.7482845800054645
steps: 226
              lr: 0.0001
                              evaluation reward: 2.43
episode: 1196
                score: 3.0
                             memory length: 227397
                                                      epsilon: 0.7477519600054761
steps: 269
              lr: 0.0001
                              evaluation reward: 2.43
                             memory length: 227594
episode: 1197
                score: 2.0
                                                      epsilon: 0.7473619000054845
steps: 197
              lr: 0.0001
                              evaluation reward: 2.41
                             memory length: 227791
                                                      epsilon: 0.746971840005493
episode: 1198
                score: 2.0
steps: 197
              lr: 0.0001
                              evaluation reward: 2.41
                             memory length: 228035
episode: 1199
                score: 3.0
                                                      epsilon: 0.7464887200055035
steps: 244
                              evaluation reward: 2.41
              lr: 0.0001
                                                      epsilon: 0.746098660005512
episode: 1200
                score: 2.0
                             memory length: 228232
steps: 197
              lr: 0.0001
                              evaluation reward: 2.39
episode: 1201
                score: 2.0
                             memory length: 228449
                                                      epsilon: 0.7456690000055213
steps: 217
              lr: 0.0001
                              evaluation reward: 2.37
episode: 1202
                score: 1.0
                             memory length: 228618
                                                      epsilon: 0.7453343800055285
steps: 169
              lr: 0.0001
                              evaluation reward: 2.37
episode: 1203
                score: 2.0
                             memory length: 228816
                                                      epsilon: 0.744942340005537
                              evaluation reward: 2.39
steps: 198
              lr: 0.0001
episode: 1204
                score: 4.0
                             memory length: 229113
                                                      epsilon: 0.7443542800055498
                              evaluation reward: 2.39
steps: 297
              lr: 0.0001
episode: 1205
                score: 1.0
                             memory length: 229282
                                                      epsilon: 0.7440196600055571
              lr: 0.0001
steps: 169
                              evaluation reward: 2.37
episode: 1206
                score: 2.0
                             memory length: 229480
                                                      epsilon: 0.7436276200055656
steps: 198
              lr: 0.0001
                              evaluation reward: 2.35
episode: 1207
                             memory length: 229727
                score: 3.0
                                                      epsilon: 0.7431385600055762
steps: 247
              lr: 0.0001
                              evaluation reward: 2.35
                                                      epsilon: 0.7426554400055867
episode: 1208
                score: 3.0
                             memory length: 229971
steps: 244
              lr: 0.0001
                              evaluation reward: 2.34
episode: 1209
                score: 2.0
                             memory length: 230168
                                                      epsilon: 0.7422653800055952
steps: 197
              lr: 0.0001
                              evaluation reward: 2.34
episode: 1210
                score: 4.0
                             memory length: 230446
                                                      epsilon: 0.7417149400056071
```

```
lr: 0.0001
                             evaluation reward: 2.37
steps: 278
episode: 1211
                score: 2.0
                             memory length: 230644
                                                      epsilon: 0.7413229000056156
steps: 198
              lr: 0.0001
                             evaluation reward: 2.35
episode: 1212
                score: 2.0
                             memory length: 230842
                                                      epsilon: 0.7409308600056241
steps: 198
              lr: 0.0001
                             evaluation reward: 2.33
episode: 1213
                score: 1.0
                             memory length: 231013
                                                      epsilon: 0.7405922800056315
                             evaluation reward: 2.32
steps: 171
              lr: 0.0001
episode: 1214
                score: 2.0
                             memory length: 231211
                                                      epsilon: 0.74020024000564
              lr: 0.0001
                             evaluation reward: 2.31
steps: 198
episode: 1215
                score: 2.0
                             memory length: 231408
                                                      epsilon: 0.7398101800056485
steps: 197
              lr: 0.0001
                             evaluation reward: 2.31
episode: 1216
                score: 0.0
                             memory length: 231530
                                                      epsilon: 0.7395686200056537
steps: 122
              lr: 0.0001
                             evaluation reward: 2.3
episode: 1217
                score: 3.0
                             memory length: 231800
                                                      epsilon: 0.7390340200056653
steps: 270
              lr: 0.0001
                             evaluation reward: 2.33
                             memory length: 232000
                                                      epsilon: 0.7386380200056739
episode: 1218
                score: 2.0
steps: 200
              lr: 0.0001
                             evaluation reward: 2.33
episode: 1219
                score: 4.0
                             memory length: 232313
                                                      epsilon: 0.7380182800056874
steps: 313
              lr: 0.0001
                             evaluation reward: 2.34
episode: 1220
                score: 6.0
                             memory length: 232667
                                                      epsilon: 0.7373173600057026
steps: 354
              lr: 0.0001
                             evaluation reward: 2.38
                             memory length: 232818
episode: 1221
                score: 1.0
                                                      epsilon: 0.7370183800057091
steps: 151
              lr: 0.0001
                             evaluation reward: 2.35
                score: 4.0
                             memory length: 233134
                                                      epsilon: 0.7363927000057227
episode: 1222
steps: 316
              lr: 0.0001
                             evaluation reward: 2.35
                             memory length: 233331
episode: 1223
                score: 2.0
                                                      epsilon: 0.7360026400057311
steps: 197
                             evaluation reward: 2.37
              lr: 0.0001
episode: 1224
                score: 3.0
                             memory length: 233578
                                                      epsilon: 0.7355135800057417
steps: 247
              lr: 0.0001
                             evaluation reward: 2.36
episode: 1225
                score: 2.0
                             memory length: 233778
                                                      epsilon: 0.7351175800057503
steps: 200
              lr: 0.0001
                             evaluation reward: 2.36
episode: 1226
                score: 2.0
                             memory length: 233975
                                                      epsilon: 0.7347275200057588
steps: 197
              lr: 0.0001
                             evaluation reward: 2.34
episode: 1227
                score: 4.0
                             memory length: 234251
                                                      epsilon: 0.7341810400057707
                             evaluation reward: 2.35
steps: 276
              lr: 0.0001
episode: 1228
                score: 1.0
                             memory length: 234402
                                                      epsilon: 0.7338820600057772
steps: 151
              lr: 0.0001
                              evaluation reward: 2.32
episode: 1229
                score: 3.0
                             memory length: 234632
                                                      epsilon: 0.733426660005787
steps: 230
              lr: 0.0001
                             evaluation reward: 2.33
episode: 1230
                score: 7.0
                             memory length: 235037
                                                      epsilon: 0.7326247600058045
              lr: 0.0001
                             evaluation reward: 2.35
steps: 405
                             memory length: 235363
episode: 1231
                score: 5.0
                                                      epsilon: 0.7319792800058185
steps: 326
              lr: 0.0001
                             evaluation reward: 2.4
                                                      epsilon: 0.731492200005829
episode: 1232
                score: 3.0
                             memory length: 235609
steps: 246
              lr: 0.0001
                             evaluation reward: 2.43
episode: 1233
                score: 2.0
                             memory length: 235807
                                                      epsilon: 0.7311001600058376
steps: 198
              lr: 0.0001
                             evaluation reward: 2.45
episode: 1234
                             memory length: 235978
                                                      epsilon: 0.7307615800058449
                score: 1.0
```

```
lr: 0.0001
                             evaluation reward: 2.45
steps: 171
episode: 1235
                score: 4.0
                             memory length: 236254
                                                      epsilon: 0.7302151000058568
steps: 276
              lr: 0.0001
                             evaluation reward: 2.47
episode: 1236
                score: 2.0
                             memory length: 236451
                                                      epsilon: 0.7298250400058652
steps: 197
              lr: 0.0001
                             evaluation reward: 2.46
episode: 1237
                score: 4.0
                             memory length: 236717
                                                      epsilon: 0.7292983600058767
                             evaluation reward: 2.48
steps: 266
              lr: 0.0001
episode: 1238
                score: 2.0
                             memory length: 236915
                                                      epsilon: 0.7289063200058852
              lr: 0.0001
                             evaluation reward: 2.49
steps: 198
episode: 1239
                score: 2.0
                             memory length: 237112
                                                      epsilon: 0.7285162600058936
steps: 197
              lr: 0.0001
                             evaluation reward: 2.51
episode: 1240
                score: 3.0
                             memory length: 237358
                                                      epsilon: 0.7280291800059042
steps: 246
              lr: 0.0001
                             evaluation reward: 2.52
episode: 1241
                score: 4.0
                             memory length: 237641
                                                      epsilon: 0.7274688400059164
steps: 283
              lr: 0.0001
                             evaluation reward: 2.54
                             memory length: 237889
                                                      epsilon: 0.726977800005927
episode: 1242
                score: 3.0
steps: 248
              lr: 0.0001
                             evaluation reward: 2.57
episode: 1243
                score: 2.0
                             memory length: 238087
                                                      epsilon: 0.7265857600059356
steps: 198
              lr: 0.0001
                             evaluation reward: 2.57
episode: 1244
                score: 3.0
                             memory length: 238313
                                                      epsilon: 0.7261382800059453
              lr: 0.0001
                             evaluation reward: 2.58
steps: 226
                             memory length: 238674
episode: 1245
                score: 5.0
                                                      epsilon: 0.7254235000059608
steps: 361
              lr: 0.0001
                             evaluation reward: 2.61
                             memory length: 238856
                                                      epsilon: 0.7250631400059686
episode: 1246
                score: 2.0
steps: 182
              lr: 0.0001
                             evaluation reward: 2.63
                             memory length: 239037
episode: 1247
                score: 2.0
                                                      epsilon: 0.7247047600059764
                             evaluation reward: 2.62
steps: 181
              lr: 0.0001
episode: 1248
                score: 4.0
                             memory length: 239317
                                                      epsilon: 0.7241503600059884
steps: 280
              lr: 0.0001
                             evaluation reward: 2.64
episode: 1249
                score: 3.0
                             memory length: 239583
                                                      epsilon: 0.7236236800059999
steps: 266
              lr: 0.0001
                             evaluation reward: 2.65
episode: 1250
                score: 2.0
                             memory length: 239781
                                                      epsilon: 0.7232316400060084
steps: 198
              lr: 0.0001
                             evaluation reward: 2.64
episode: 1251
                score: 1.0
                             memory length: 239932
                                                      epsilon: 0.7229326600060149
              lr: 0.0001
                             evaluation reward: 2.63
steps: 151
episode: 1252
                score: 2.0
                             memory length: 240113
                                                      epsilon: 0.7225742800060226
                              evaluation reward: 2.6
steps: 181
              lr: 0.0001
episode: 1253
                score: 2.0
                             memory length: 240292
                                                      epsilon: 0.7222198600060303
              lr: 0.0001
                             evaluation reward: 2.61
steps: 179
episode: 1254
                score: 3.0
                             memory length: 240519
                                                      epsilon: 0.7217704000060401
steps: 227
              lr: 0.0001
                             evaluation reward: 2.63
                             memory length: 240750
episode: 1255
                score: 3.0
                                                      epsilon: 0.72131302000605
steps: 231
              lr: 0.0001
                             evaluation reward: 2.62
                                                      epsilon: 0.7209229600060585
episode: 1256
                score: 2.0
                             memory length: 240947
steps: 197
              lr: 0.0001
                             evaluation reward: 2.64
episode: 1257
                score: 7.0
                             memory length: 241266
                                                      epsilon: 0.7202913400060722
steps: 319
              lr: 0.0001
                             evaluation reward: 2.69
episode: 1258
                             memory length: 241495
                                                      epsilon: 0.719837920006082
                score: 3.0
```

```
lr: 0.0001
                              evaluation reward: 2.69
steps: 229
episode: 1259
                score: 3.0
                             memory length: 241742
                                                      epsilon: 0.7193488600060927
steps: 247
              lr: 0.0001
                              evaluation reward: 2.69
episode: 1260
                score: 4.0
                             memory length: 242037
                                                      epsilon: 0.7187647600061053
steps: 295
              lr: 0.0001
                              evaluation reward: 2.7
episode: 1261
                score: 3.0
                             memory length: 242264
                                                      epsilon: 0.7183153000061151
                              evaluation reward: 2.7
steps: 227
              lr: 0.0001
episode: 1262
                score: 1.0
                             memory length: 242415
                                                      epsilon: 0.7180163200061216
              lr: 0.0001
                              evaluation reward: 2.69
steps: 151
episode: 1263
                score: 4.0
                             memory length: 242672
                                                      epsilon: 0.7175074600061326
steps: 257
              lr: 0.0001
                              evaluation reward: 2.71
episode: 1264
                score: 2.0
                              memory length: 242890
                                                      epsilon: 0.717075820006142
steps: 218
              lr: 0.0001
                              evaluation reward: 2.69
episode: 1265
                score: 4.0
                              memory length: 243164
                                                      epsilon: 0.7165333000061538
steps: 274
              lr: 0.0001
                              evaluation reward: 2.68
                             memory length: 243362
                                                      epsilon: 0.7161412600061623
episode: 1266
                score: 2.0
steps: 198
              lr: 0.0001
                              evaluation reward: 2.69
episode: 1267
                score: 2.0
                             memory length: 243559
                                                      epsilon: 0.7157512000061708
steps: 197
              lr: 0.0001
                              evaluation reward: 2.7
episode: 1268
                score: 4.0
                             memory length: 243856
                                                      epsilon: 0.7151631400061835
              lr: 0.0001
steps: 297
                              evaluation reward: 2.66
                             memory length: 244113
episode: 1269
                score: 4.0
                                                      epsilon: 0.7146542800061946
steps: 257
              lr: 0.0001
                              evaluation reward: 2.68
                score: 3.0
                             memory length: 244339
                                                      epsilon: 0.7142068000062043
episode: 1270
steps: 226
              lr: 0.0001
                              evaluation reward: 2.71
                             memory length: 244537
episode: 1271
                score: 2.0
                                                      epsilon: 0.7138147600062128
steps: 198
                              evaluation reward: 2.71
              lr: 0.0001
                                                      epsilon: 0.7134544000062206
episode: 1272
                score: 2.0
                             memory length: 244719
steps: 182
              lr: 0.0001
                              evaluation reward: 2.69
episode: 1273
                score: 4.0
                             memory length: 244994
                                                      epsilon: 0.7129099000062324
steps: 275
              lr: 0.0001
                              evaluation reward: 2.7
episode: 1274
                score: 3.0
                             memory length: 245237
                                                      epsilon: 0.7124287600062429
steps: 243
              lr: 0.0001
                              evaluation reward: 2.7
episode: 1275
                score: 4.0
                             memory length: 245558
                                                      epsilon: 0.7117931800062567
              lr: 0.0001
                              evaluation reward: 2.71
steps: 321
episode: 1276
                score: 4.0
                             memory length: 245837
                                                      epsilon: 0.7112407600062687
steps: 279
              lr: 0.0001
                              evaluation reward: 2.73
episode: 1277
                score: 2.0
                             memory length: 246034
                                                      epsilon: 0.7108507000062771
              lr: 0.0001
steps: 197
                              evaluation reward: 2.73
episode: 1278
                score: 1.0
                             memory length: 246185
                                                      epsilon: 0.7105517200062836
steps: 151
              lr: 0.0001
                              evaluation reward: 2.72
                              memory length: 246429
                                                      epsilon: 0.7100686000062941
episode: 1279
                score: 3.0
steps: 244
              lr: 0.0001
                              evaluation reward: 2.73
                                                      epsilon: 0.7096389400063035
episode: 1280
                score: 2.0
                             memory length: 246646
steps: 217
              lr: 0.0001
                              evaluation reward: 2.73
episode: 1281
                score: 5.0
                             memory length: 246952
                                                      epsilon: 0.7090330600063166
steps: 306
              lr: 0.0001
                              evaluation reward: 2.74
episode: 1282
                             memory length: 247154
                                                      epsilon: 0.7086331000063253
                score: 2.0
```

```
lr: 0.0001
                              evaluation reward: 2.74
steps: 202
episode: 1283
                score: 0.0
                             memory length: 247276
                                                      epsilon: 0.7083915400063305
steps: 122
              lr: 0.0001
                              evaluation reward: 2.69
episode: 1284
                score: 3.0
                             memory length: 247486
                                                      epsilon: 0.7079757400063396
steps: 210
              lr: 0.0001
                              evaluation reward: 2.69
episode: 1285
                score: 4.0
                             memory length: 247780
                                                      epsilon: 0.7073936200063522
                              evaluation reward: 2.71
steps: 294
              lr: 0.0001
episode: 1286
                score: 4.0
                             memory length: 248073
                                                      epsilon: 0.7068134800063648
              lr: 0.0001
                              evaluation reward: 2.72
steps: 293
episode: 1287
                score: 2.0
                             memory length: 248255
                                                      epsilon: 0.7064531200063726
steps: 182
              lr: 0.0001
                              evaluation reward: 2.71
episode: 1288
                score: 2.0
                              memory length: 248452
                                                      epsilon: 0.7060630600063811
steps: 197
              lr: 0.0001
                              evaluation reward: 2.68
episode: 1289
                score: 3.0
                             memory length: 248679
                                                      epsilon: 0.7056136000063908
steps: 227
              lr: 0.0001
                              evaluation reward: 2.68
                             memory length: 248831
                                                      epsilon: 0.7053126400063974
episode: 1290
                score: 1.0
steps: 152
              lr: 0.0001
                              evaluation reward: 2.68
episode: 1291
                score: 3.0
                             memory length: 249057
                                                      epsilon: 0.7048651600064071
steps: 226
              lr: 0.0001
                              evaluation reward: 2.71
episode: 1292
                score: 3.0
                             memory length: 249303
                                                      epsilon: 0.7043780800064177
              lr: 0.0001
                              evaluation reward: 2.72
steps: 246
                             memory length: 249471
episode: 1293
                score: 1.0
                                                      epsilon: 0.7040454400064249
steps: 168
              lr: 0.0001
                              evaluation reward: 2.71
                score: 3.0
                             memory length: 249717
                                                      epsilon: 0.7035583600064355
episode: 1294
steps: 246
              lr: 0.0001
                              evaluation reward: 2.72
episode: 1295
                score: 2.0
                             memory length: 249935
                                                      epsilon: 0.7031267200064448
steps: 218
              lr: 0.0001
                              evaluation reward: 2.71
episode: 1296
                score: 3.0
                             memory length: 250163
                                                      epsilon: 0.7026752800064546
steps: 228
              lr: 0.0001
                              evaluation reward: 2.71
episode: 1297
                score: 5.0
                             memory length: 250487
                                                      epsilon: 0.7020337600064686
steps: 324
              lr: 0.0001
                              evaluation reward: 2.74
episode: 1298
                score: 3.0
                             memory length: 250734
                                                      epsilon: 0.7015447000064792
steps: 247
              lr: 0.0001
                              evaluation reward: 2.75
episode: 1299
                score: 3.0
                             memory length: 250959
                                                      epsilon: 0.7010992000064888
                              evaluation reward: 2.75
steps: 225
              lr: 0.0001
episode: 1300
                score: 2.0
                             memory length: 251156
                                                      epsilon: 0.7007091400064973
steps: 197
              lr: 0.0001
                              evaluation reward: 2.75
episode: 1301
                score: 7.0
                             memory length: 251551
                                                      epsilon: 0.6999270400065143
steps: 395
              lr: 0.0001
                              evaluation reward: 2.8
episode: 1302
                score: 3.0
                             memory length: 251795
                                                      epsilon: 0.6994439200065248
              lr: 0.0001
                              evaluation reward: 2.82
steps: 244
                             memory length: 252118
episode: 1303
                score: 5.0
                                                      epsilon: 0.6988043800065387
steps: 323
              lr: 0.0001
                              evaluation reward: 2.85
episode: 1304
                score: 2.0
                             memory length: 252316
                                                      epsilon: 0.6984123400065472
steps: 198
              lr: 0.0001
                              evaluation reward: 2.83
episode: 1305
                score: 2.0
                             memory length: 252513
                                                      epsilon: 0.6980222800065556
steps: 197
              lr: 0.0001
                              evaluation reward: 2.84
episode: 1306
                             memory length: 252731
                                                      epsilon: 0.697590640006565
                score: 2.0
```

```
lr: 0.0001
                             evaluation reward: 2.84
steps: 218
episode: 1307
                score: 3.0
                             memory length: 252978
                                                      epsilon: 0.6971015800065756
steps: 247
              lr: 0.0001
                             evaluation reward: 2.84
episode: 1308
                score: 5.0
                             memory length: 253328
                                                      epsilon: 0.6964085800065907
steps: 350
              lr: 0.0001
                             evaluation reward: 2.86
episode: 1309
                score: 2.0
                             memory length: 253510
                                                      epsilon: 0.6960482200065985
                             evaluation reward: 2.86
steps: 182
              lr: 0.0001
episode: 1310
                score: 0.0
                             memory length: 253632
                                                      epsilon: 0.6958066600066037
              lr: 0.0001
                             evaluation reward: 2.82
steps: 122
episode: 1311
                score: 4.0
                             memory length: 253899
                                                      epsilon: 0.6952780000066152
steps: 267
              lr: 0.0001
                             evaluation reward: 2.84
episode: 1312
                score: 3.0
                             memory length: 254124
                                                      epsilon: 0.6948325000066249
steps: 225
              lr: 0.0001
                             evaluation reward: 2.85
episode: 1313
                score: 4.0
                             memory length: 254388
                                                      epsilon: 0.6943097800066362
steps: 264
              lr: 0.0001
                             evaluation reward: 2.88
                             memory length: 254708
                                                      epsilon: 0.69367618000665
episode: 1314
                score: 5.0
steps: 320
              lr: 0.0001
                             evaluation reward: 2.91
episode: 1315
                score: 2.0
                             memory length: 254905
                                                      epsilon: 0.6932861200066585
steps: 197
              lr: 0.0001
                             evaluation reward: 2.91
episode: 1316
                score: 2.0
                             memory length: 255103
                                                      epsilon: 0.692894080006667
steps: 198
              lr: 0.0001
                             evaluation reward: 2.93
                             memory length: 255285
episode: 1317
                score: 2.0
                                                      epsilon: 0.6925337200066748
steps: 182
              lr: 0.0001
                             evaluation reward: 2.92
                             memory length: 255581
                                                      epsilon: 0.6919476400066875
episode: 1318
                score: 4.0
steps: 296
              lr: 0.0001
                             evaluation reward: 2.94
episode: 1319
                score: 2.0
                             memory length: 255779
                                                      epsilon: 0.691555600006696
                             evaluation reward: 2.92
steps: 198
              lr: 0.0001
                                                      epsilon: 0.6911655400067045
episode: 1320
                score: 2.0
                             memory length: 255976
steps: 197
              lr: 0.0001
                             evaluation reward: 2.88
episode: 1321
                score: 1.0
                             memory length: 256144
                                                      epsilon: 0.6908329000067117
steps: 168
              lr: 0.0001
                             evaluation reward: 2.88
episode: 1322
                score: 3.0
                             memory length: 256390
                                                      epsilon: 0.6903458200067223
steps: 246
              lr: 0.0001
                             evaluation reward: 2.87
episode: 1323
                score: 2.0
                             memory length: 256587
                                                      epsilon: 0.6899557600067308
                             evaluation reward: 2.87
steps: 197
              lr: 0.0001
                                                      epsilon: 0.6894686800067413
episode: 1324
                score: 3.0
                             memory length: 256833
steps: 246
              lr: 0.0001
                              evaluation reward: 2.87
episode: 1325
                score: 5.0
                             memory length: 257154
                                                      epsilon: 0.6888331000067551
steps: 321
              lr: 0.0001
                             evaluation reward: 2.9
episode: 1326
                score: 1.0
                             memory length: 257304
                                                      epsilon: 0.6885361000067616
steps: 150
              lr: 0.0001
                             evaluation reward: 2.89
                             memory length: 257529
                                                      epsilon: 0.6880906000067712
episode: 1327
                score: 3.0
steps: 225
              lr: 0.0001
                             evaluation reward: 2.88
episode: 1328
                score: 4.0
                             memory length: 257804
                                                      epsilon: 0.6875461000067831
steps: 275
              lr: 0.0001
                             evaluation reward: 2.91
episode: 1329
                score: 2.0
                             memory length: 258023
                                                      epsilon: 0.6871124800067925
steps: 219
              lr: 0.0001
                             evaluation reward: 2.9
episode: 1330
                             memory length: 258318
                                                      epsilon: 0.6865283800068052
                score: 4.0
```

```
lr: 0.0001
                              evaluation reward: 2.87
steps: 295
episode: 1331
                score: 6.0
                             memory length: 258671
                                                      epsilon: 0.6858294400068203
steps: 353
              lr: 0.0001
                              evaluation reward: 2.88
                score: 5.0
                             memory length: 259016
episode: 1332
                                                      epsilon: 0.6851463400068352
steps: 345
              lr: 0.0001
                              evaluation reward: 2.9
episode: 1333
                             memory length: 259246
                score: 3.0
                                                      epsilon: 0.684690940006845
                              evaluation reward: 2.91
steps: 230
              lr: 0.0001
episode: 1334
                score: 5.0
                             memory length: 259569
                                                      epsilon: 0.6840514000068589
              lr: 0.0001
                              evaluation reward: 2.95
steps: 323
episode: 1335
                score: 4.0
                             memory length: 259848
                                                      epsilon: 0.6834989800068709
steps: 279
              lr: 0.0001
                              evaluation reward: 2.95
episode: 1336
                score: 4.0
                              memory length: 260144
                                                      epsilon: 0.6829129000068836
steps: 296
              lr: 0.0001
                              evaluation reward: 2.97
episode: 1337
                score: 4.0
                              memory length: 260458
                                                      epsilon: 0.6822911800068971
steps: 314
              lr: 0.0001
                              evaluation reward: 2.97
                             memory length: 260638
                                                      epsilon: 0.6819347800069049
episode: 1338
                score: 2.0
steps: 180
              lr: 0.0001
                              evaluation reward: 2.97
episode: 1339
                score: 4.0
                             memory length: 260934
                                                      epsilon: 0.6813487000069176
steps: 296
              lr: 0.0001
                              evaluation reward: 2.99
episode: 1340
                score: 2.0
                             memory length: 261131
                                                      epsilon: 0.6809586400069261
              lr: 0.0001
steps: 197
                              evaluation reward: 2.98
                             memory length: 261361
episode: 1341
                score: 3.0
                                                      epsilon: 0.680503240006936
steps: 230
              lr: 0.0001
                              evaluation reward: 2.97
                             memory length: 261620
                                                      epsilon: 0.6799904200069471
episode: 1342
                score: 4.0
steps: 259
              lr: 0.0001
                              evaluation reward: 2.98
episode: 1343
                score: 3.0
                             memory length: 261846
                                                      epsilon: 0.6795429400069568
                              evaluation reward: 2.99
steps: 226
              lr: 0.0001
                                                      epsilon: 0.6791509000069653
episode: 1344
                score: 2.0
                             memory length: 262044
steps: 198
              lr: 0.0001
                              evaluation reward: 2.98
episode: 1345
                score: 4.0
                             memory length: 262319
                                                      epsilon: 0.6786064000069771
steps: 275
              lr: 0.0001
                              evaluation reward: 2.97
episode: 1346
                score: 1.0
                             memory length: 262469
                                                      epsilon: 0.6783094000069836
steps: 150
              lr: 0.0001
                              evaluation reward: 2.96
                score: 2.0
                             memory length: 262667
episode: 1347
                                                      epsilon: 0.6779173600069921
                              evaluation reward: 2.96
steps: 198
              lr: 0.0001
episode: 1348
                score: 1.0
                             memory length: 262818
                                                      epsilon: 0.6776183800069986
steps: 151
              lr: 0.0001
                              evaluation reward: 2.93
episode: 1349
                score: 4.0
                             memory length: 263060
                                                      epsilon: 0.677139220007009
steps: 242
              lr: 0.0001
                              evaluation reward: 2.94
episode: 1350
                score: 4.0
                             memory length: 263317
                                                      epsilon: 0.67663036000702
steps: 257
              lr: 0.0001
                              evaluation reward: 2.96
                             memory length: 263562
episode: 1351
                score: 3.0
                                                      epsilon: 0.6761452600070306
steps: 245
              lr: 0.0001
                              evaluation reward: 2.98
episode: 1352
                score: 1.0
                             memory length: 263713
                                                      epsilon: 0.6758462800070371
steps: 151
              lr: 0.0001
                              evaluation reward: 2.97
episode: 1353
                score: 4.0
                             memory length: 264010
                                                      epsilon: 0.6752582200070498
steps: 297
              lr: 0.0001
                              evaluation reward: 2.99
episode: 1354
                             memory length: 264133
                                                      epsilon: 0.6750146800070551
                score: 0.0
```

```
lr: 0.0001
                              evaluation reward: 2.96
steps: 123
episode: 1355
                score: 3.0
                             memory length: 264399
                                                      epsilon: 0.6744880000070665
steps: 266
              lr: 0.0001
                              evaluation reward: 2.96
episode: 1356
                score: 6.0
                             memory length: 264772
                                                      epsilon: 0.6737494600070826
steps: 373
              lr: 0.0001
                              evaluation reward: 3.0
episode: 1357
                score: 3.0
                             memory length: 264998
                                                      epsilon: 0.6733019800070923
                              evaluation reward: 2.96
steps: 226
              lr: 0.0001
episode: 1358
                score: 3.0
                             memory length: 265223
                                                      epsilon: 0.672856480007102
              lr: 0.0001
                              evaluation reward: 2.96
steps: 225
episode: 1359
                score: 4.0
                             memory length: 265514
                                                      epsilon: 0.6722803000071145
steps: 291
              lr: 0.0001
                              evaluation reward: 2.97
episode: 1360
                score: 1.0
                              memory length: 265665
                                                      epsilon: 0.671981320007121
steps: 151
              lr: 0.0001
                              evaluation reward: 2.94
episode: 1361
                score: 3.0
                              memory length: 265908
                                                      epsilon: 0.6715001800071314
steps: 243
              lr: 0.0001
                              evaluation reward: 2.94
                             memory length: 266175
                                                      epsilon: 0.6709715200071429
episode: 1362
                score: 3.0
steps: 267
              lr: 0.0001
                              evaluation reward: 2.96
episode: 1363
                score: 3.0
                             memory length: 266388
                                                      epsilon: 0.670549780007152
steps: 213
              lr: 0.0001
                              evaluation reward: 2.95
episode: 1364
                score: 3.0
                             memory length: 266615
                                                      epsilon: 0.6701003200071618
steps: 227
              lr: 0.0001
                              evaluation reward: 2.96
                             memory length: 266843
episode: 1365
                score: 3.0
                                                      epsilon: 0.6696488800071716
steps: 228
              lr: 0.0001
                              evaluation reward: 2.95
                             memory length: 267104
                                                      epsilon: 0.6691321000071828
episode: 1366
                score: 4.0
steps: 261
              lr: 0.0001
                              evaluation reward: 2.97
episode: 1367
                score: 3.0
                             memory length: 267329
                                                      epsilon: 0.6686866000071925
                              evaluation reward: 2.98
steps: 225
              lr: 0.0001
episode: 1368
                score: 1.0
                             memory length: 267481
                                                      epsilon: 0.668385640007199
                              evaluation reward: 2.95
steps: 152
              lr: 0.0001
episode: 1369
                score: 3.0
                             memory length: 267706
                                                      epsilon: 0.6679401400072087
steps: 225
              lr: 0.0001
                              evaluation reward: 2.94
episode: 1370
                score: 0.0
                             memory length: 267829
                                                      epsilon: 0.667696600007214
steps: 123
              lr: 0.0001
                              evaluation reward: 2.91
                score: 4.0
                             memory length: 268108
episode: 1371
                                                      epsilon: 0.667144180007226
                              evaluation reward: 2.93
steps: 279
              lr: 0.0001
episode: 1372
                score: 2.0
                             memory length: 268325
                                                      epsilon: 0.6667145200072353
steps: 217
              lr: 0.0001
                              evaluation reward: 2.93
episode: 1373
                score: 3.0
                             memory length: 268572
                                                      epsilon: 0.6662254600072459
steps: 247
              lr: 0.0001
                              evaluation reward: 2.92
episode: 1374
                score: 4.0
                             memory length: 268870
                                                      epsilon: 0.6656354200072587
steps: 298
              lr: 0.0001
                              evaluation reward: 2.93
                              memory length: 269191
episode: 1375
                score: 5.0
                                                      epsilon: 0.6649998400072725
steps: 321
              lr: 0.0001
                              evaluation reward: 2.94
                                                      epsilon: 0.6642256600072893
episode: 1376
                score: 6.0
                             memory length: 269582
steps: 391
              lr: 0.0001
                              evaluation reward: 2.96
episode: 1377
                score: 4.0
                             memory length: 269856
                                                      epsilon: 0.6636831400073011
steps: 274
              lr: 0.0001
                              evaluation reward: 2.98
episode: 1378
                             memory length: 270181
                                                      epsilon: 0.6630396400073151
                score: 5.0
```

```
lr: 0.0001
                              evaluation reward: 3.02
steps: 325
episode: 1379
                score: 2.0
                             memory length: 270362
                                                      epsilon: 0.6626812600073229
steps: 181
              lr: 0.0001
                              evaluation reward: 3.01
episode: 1380
                score: 4.0
                             memory length: 270619
                                                      epsilon: 0.6621724000073339
steps: 257
              lr: 0.0001
                              evaluation reward: 3.03
episode: 1381
                score: 2.0
                             memory length: 270800
                                                      epsilon: 0.6618140200073417
steps: 181
              lr: 0.0001
                              evaluation reward: 3.0
episode: 1382
                score: 2.0
                             memory length: 270997
                                                      epsilon: 0.6614239600073502
                              evaluation reward: 3.0
steps: 197
              lr: 0.0001
episode: 1383
                score: 4.0
                             memory length: 271313
                                                      epsilon: 0.6607982800073637
steps: 316
              lr: 0.0001
                              evaluation reward: 3.04
episode: 1384
                score: 3.0
                              memory length: 271541
                                                      epsilon: 0.6603468400073735
steps: 228
              lr: 0.0001
                              evaluation reward: 3.04
episode: 1385
                score: 4.0
                              memory length: 271817
                                                      epsilon: 0.6598003600073854
steps: 276
              lr: 0.0001
                              evaluation reward: 3.04
                             memory length: 272015
                                                      epsilon: 0.6594083200073939
episode: 1386
                score: 2.0
steps: 198
              lr: 0.0001
                              evaluation reward: 3.02
episode: 1387
                score: 3.0
                             memory length: 272263
                                                      epsilon: 0.6589172800074046
steps: 248
              lr: 0.0001
                              evaluation reward: 3.03
episode: 1388
                score: 2.0
                             memory length: 272460
                                                      epsilon: 0.658527220007413
steps: 197
              lr: 0.0001
                              evaluation reward: 3.03
                             memory length: 272686
episode: 1389
                score: 3.0
                                                      epsilon: 0.6580797400074228
steps: 226
              lr: 0.0001
                              evaluation reward: 3.03
                             memory length: 272960
                                                      epsilon: 0.6575372200074345
episode: 1390
                score: 4.0
steps: 274
              lr: 0.0001
                              evaluation reward: 3.06
episode: 1391
                score: 3.0
                             memory length: 273187
                                                      epsilon: 0.6570877600074443
                              evaluation reward: 3.06
steps: 227
              lr: 0.0001
episode: 1392
                score: 3.0
                              memory length: 273433
                                                      epsilon: 0.6566006800074549
steps: 246
              lr: 0.0001
                              evaluation reward: 3.06
episode: 1393
                score: 6.0
                             memory length: 273808
                                                      epsilon: 0.655858180007471
steps: 375
              lr: 0.0001
                              evaluation reward: 3.11
episode: 1394
                score: 6.0
                             memory length: 274170
                                                      epsilon: 0.6551414200074865
steps: 362
              lr: 0.0001
                              evaluation reward: 3.14
episode: 1395
                score: 4.0
                             memory length: 274426
                                                      epsilon: 0.6546345400074975
                              evaluation reward: 3.16
steps: 256
              lr: 0.0001
episode: 1396
                score: 2.0
                             memory length: 274624
                                                      epsilon: 0.6542425000075061
steps: 198
              lr: 0.0001
                              evaluation reward: 3.15
episode: 1397
                score: 5.0
                             memory length: 274939
                                                      epsilon: 0.6536188000075196
steps: 315
              lr: 0.0001
                              evaluation reward: 3.15
episode: 1398
                score: 5.0
                             memory length: 275260
                                                      epsilon: 0.6529832200075334
              lr: 0.0001
                              evaluation reward: 3.17
steps: 321
                              memory length: 275490
episode: 1399
                score: 3.0
                                                      epsilon: 0.6525278200075433
steps: 230
              lr: 0.0001
                              evaluation reward: 3.17
                                                      epsilon: 0.6520090600075545
episode: 1400
                score: 4.0
                             memory length: 275752
steps: 262
              lr: 0.0001
                              evaluation reward: 3.19
episode: 1401
                score: 4.0
                             memory length: 276036
                                                      epsilon: 0.6514467400075667
steps: 284
              lr: 0.0001
                              evaluation reward: 3.16
episode: 1402
                             memory length: 276247
                                                      epsilon: 0.6510289600075758
                score: 3.0
```

```
lr: 0.0001
                             evaluation reward: 3.16
steps: 211
episode: 1403
                score: 5.0
                             memory length: 276548
                                                      epsilon: 0.6504329800075888
steps: 301
              lr: 0.0001
                             evaluation reward: 3.16
episode: 1404
                score: 6.0
                             memory length: 276884
                                                      epsilon: 0.6497677000076032
steps: 336
              lr: 0.0001
                             evaluation reward: 3.2
episode: 1405
                score: 4.0
                             memory length: 277142
                                                      epsilon: 0.6492568600076143
                             evaluation reward: 3.22
steps: 258
              lr: 0.0001
episode: 1406
                score: 4.0
                             memory length: 277438
                                                      epsilon: 0.648670780007627
                             evaluation reward: 3.24
steps: 296
              lr: 0.0001
episode: 1407
                score: 5.0
                             memory length: 277733
                                                      epsilon: 0.6480866800076397
steps: 295
              lr: 0.0001
                             evaluation reward: 3.26
episode: 1408
                score: 1.0
                             memory length: 277905
                                                      epsilon: 0.6477461200076471
steps: 172
              lr: 0.0001
                             evaluation reward: 3.22
episode: 1409
                score: 2.0
                             memory length: 278084
                                                      epsilon: 0.6473917000076548
steps: 179
              lr: 0.0001
                             evaluation reward: 3.22
                             memory length: 278376
                                                      epsilon: 0.6468135400076673
episode: 1410
                score: 4.0
steps: 292
              lr: 0.0001
                             evaluation reward: 3.26
episode: 1411
                score: 0.0
                             memory length: 278498
                                                      epsilon: 0.6465719800076726
steps: 122
              lr: 0.0001
                             evaluation reward: 3.22
episode: 1412
                score: 4.0
                             memory length: 278798
                                                      epsilon: 0.6459779800076855
steps: 300
              lr: 0.0001
                             evaluation reward: 3.23
                             memory length: 278995
episode: 1413
                score: 2.0
                                                      epsilon: 0.6455879200076939
steps: 197
              lr: 0.0001
                             evaluation reward: 3.21
                             memory length: 279220
episode: 1414
                score: 3.0
                                                      epsilon: 0.6451424200077036
steps: 225
              lr: 0.0001
                             evaluation reward: 3.19
                             memory length: 279370
episode: 1415
                score: 1.0
                                                      epsilon: 0.6448454200077101
steps: 150
                             evaluation reward: 3.18
              lr: 0.0001
                                                      epsilon: 0.6444296200077191
episode: 1416
                score: 3.0
                             memory length: 279580
steps: 210
              lr: 0.0001
                             evaluation reward: 3.19
episode: 1417
                score: 4.0
                             memory length: 279839
                                                      epsilon: 0.6439168000077302
steps: 259
              lr: 0.0001
                             evaluation reward: 3.21
episode: 1418
                score: 3.0
                             memory length: 280085
                                                      epsilon: 0.6434297200077408
steps: 246
              lr: 0.0001
                             evaluation reward: 3.2
episode: 1419
                score: 4.0
                             memory length: 280359
                                                      epsilon: 0.6428872000077526
                             evaluation reward: 3.22
steps: 274
              lr: 0.0001
                                                      epsilon: 0.642497140007761
episode: 1420
                score: 2.0
                             memory length: 280556
steps: 197
              lr: 0.0001
                              evaluation reward: 3.22
episode: 1421
                score: 4.0
                             memory length: 280831
                                                      epsilon: 0.6419526400077729
steps: 275
              lr: 0.0001
                             evaluation reward: 3.25
episode: 1422
                score: 4.0
                             memory length: 281106
                                                      epsilon: 0.6414081400077847
              lr: 0.0001
                             evaluation reward: 3.26
steps: 275
                             memory length: 281316
episode: 1423
                score: 3.0
                                                      epsilon: 0.6409923400077937
steps: 210
              lr: 0.0001
                             evaluation reward: 3.27
                                                      epsilon: 0.6404359600078058
episode: 1424
                score: 4.0
                             memory length: 281597
steps: 281
              lr: 0.0001
                             evaluation reward: 3.28
episode: 1425
                score: 2.0
                             memory length: 281796
                                                      epsilon: 0.6400419400078143
steps: 199
              lr: 0.0001
                             evaluation reward: 3.25
episode: 1426
                             memory length: 282093
                                                      epsilon: 0.6394538800078271
                score: 4.0
```

```
lr: 0.0001
                             evaluation reward: 3.28
steps: 297
episode: 1427
                score: 3.0
                             memory length: 282318
                                                      epsilon: 0.6390083800078368
steps: 225
              lr: 0.0001
                             evaluation reward: 3.28
episode: 1428
                score: 2.0
                             memory length: 282499
                                                      epsilon: 0.6386500000078446
steps: 181
              lr: 0.0001
                             evaluation reward: 3.26
episode: 1429
                score: 3.0
                             memory length: 282709
                                                      epsilon: 0.6382342000078536
                             evaluation reward: 3.27
steps: 210
              lr: 0.0001
episode: 1430
                score: 1.0
                             memory length: 282860
                                                      epsilon: 0.6379352200078601
              lr: 0.0001
                             evaluation reward: 3.24
steps: 151
episode: 1431
                score: 4.0
                             memory length: 283114
                                                      epsilon: 0.637432300007871
steps: 254
              lr: 0.0001
                             evaluation reward: 3.22
episode: 1432
                score: 4.0
                             memory length: 283390
                                                      epsilon: 0.6368858200078829
steps: 276
              lr: 0.0001
                             evaluation reward: 3.21
episode: 1433
                score: 2.0
                             memory length: 283587
                                                      epsilon: 0.6364957600078913
steps: 197
              lr: 0.0001
                             evaluation reward: 3.2
                             memory length: 283768
                                                      epsilon: 0.6361373800078991
episode: 1434
                score: 2.0
steps: 181
              lr: 0.0001
                             evaluation reward: 3.17
episode: 1435
                score: 3.0
                             memory length: 283993
                                                      epsilon: 0.6356918800079088
steps: 225
              lr: 0.0001
                             evaluation reward: 3.16
episode: 1436
                score: 5.0
                             memory length: 284301
                                                      epsilon: 0.635082040007922
              lr: 0.0001
steps: 308
                             evaluation reward: 3.17
                             memory length: 284500
episode: 1437
                score: 2.0
                                                      epsilon: 0.6346880200079306
steps: 199
              lr: 0.0001
                             evaluation reward: 3.15
                             memory length: 284727
                                                      epsilon: 0.6342385600079403
episode: 1438
                score: 3.0
steps: 227
              lr: 0.0001
                             evaluation reward: 3.16
                             memory length: 284952
episode: 1439
                score: 3.0
                                                      epsilon: 0.63379306000795
                             evaluation reward: 3.15
steps: 225
              lr: 0.0001
episode: 1440
                score: 5.0
                             memory length: 285296
                                                      epsilon: 0.6331119400079648
steps: 344
              lr: 0.0001
                             evaluation reward: 3.18
episode: 1441
                score: 6.0
                             memory length: 285668
                                                      epsilon: 0.6323753800079808
steps: 372
              lr: 0.0001
                             evaluation reward: 3.21
episode: 1442
                score: 3.0
                             memory length: 285893
                                                      epsilon: 0.6319298800079904
steps: 225
              lr: 0.0001
                             evaluation reward: 3.2
episode: 1443
                score: 5.0
                             memory length: 286209
                                                      epsilon: 0.631304200008004
                             evaluation reward: 3.22
steps: 316
              lr: 0.0001
episode: 1444
                score: 2.0
                             memory length: 286390
                                                      epsilon: 0.6309458200080118
steps: 181
              lr: 0.0001
                              evaluation reward: 3.22
episode: 1445
                score: 3.0
                             memory length: 286615
                                                      epsilon: 0.6305003200080215
steps: 225
              lr: 0.0001
                             evaluation reward: 3.21
episode: 1446
                score: 1.0
                             memory length: 286766
                                                      epsilon: 0.630201340008028
              lr: 0.0001
                             evaluation reward: 3.21
steps: 151
                             memory length: 287015
episode: 1447
                score: 3.0
                                                      epsilon: 0.6297083200080387
steps: 249
              lr: 0.0001
                             evaluation reward: 3.22
                                                      epsilon: 0.6291440200080509
episode: 1448
                score: 5.0
                             memory length: 287300
steps: 285
              lr: 0.0001
                             evaluation reward: 3.26
episode: 1449
                score: 3.0
                             memory length: 287513
                                                      epsilon: 0.6287222800080601
steps: 213
              lr: 0.0001
                             evaluation reward: 3.25
episode: 1450
                             memory length: 287816
                                                      epsilon: 0.6281223400080731
                score: 5.0
```

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lr: 0.0001
                              evaluation reward: 3.26
steps: 303
episode: 1451
                score: 4.0
                             memory length: 288112
                                                      epsilon: 0.6275362600080858
steps: 296
              lr: 0.0001
                              evaluation reward: 3.27
episode: 1452
                score: 3.0
                             memory length: 288359
                                                      epsilon: 0.6270472000080964
steps: 247
              lr: 0.0001
                              evaluation reward: 3.29
episode: 1453
                             memory length: 288610
                score: 3.0
                                                      epsilon: 0.6265502200081072
                              evaluation reward: 3.28
steps: 251
              lr: 0.0001
episode: 1454
                score: 3.0
                             memory length: 288856
                                                      epsilon: 0.6260631400081178
              lr: 0.0001
                              evaluation reward: 3.31
steps: 246
episode: 1455
                score: 2.0
                             memory length: 289074
                                                      epsilon: 0.6256315000081272
steps: 218
              lr: 0.0001
                              evaluation reward: 3.3
episode: 1456
                score: 3.0
                              memory length: 289299
                                                      epsilon: 0.6251860000081368
steps: 225
              lr: 0.0001
                              evaluation reward: 3.27
episode: 1457
                score: 4.0
                              memory length: 289578
                                                      epsilon: 0.6246335800081488
steps: 279
              lr: 0.0001
                              evaluation reward: 3.28
                             memory length: 289804
                                                      epsilon: 0.6241861000081586
episode: 1458
                score: 3.0
steps: 226
              lr: 0.0001
                              evaluation reward: 3.28
episode: 1459
                score: 3.0
                             memory length: 290030
                                                      epsilon: 0.6237386200081683
steps: 226
              lr: 0.0001
                              evaluation reward: 3.27
episode: 1460
                score: 3.0
                             memory length: 290300
                                                      epsilon: 0.6232040200081799
steps: 270
              lr: 0.0001
                              evaluation reward: 3.29
                             memory length: 290546
episode: 1461
                score: 3.0
                                                      epsilon: 0.6227169400081904
steps: 246
              lr: 0.0001
                              evaluation reward: 3.29
                             memory length: 290727
                                                      epsilon: 0.6223585600081982
episode: 1462
                score: 2.0
steps: 181
              lr: 0.0001
                              evaluation reward: 3.28
                             memory length: 291014
episode: 1463
                score: 4.0
                                                      epsilon: 0.6217903000082106
                              evaluation reward: 3.29
steps: 287
              lr: 0.0001
                                                      epsilon: 0.6213745000082196
episode: 1464
                score: 3.0
                             memory length: 291224
steps: 210
              lr: 0.0001
                              evaluation reward: 3.29
episode: 1465
                score: 5.0
                             memory length: 291527
                                                      epsilon: 0.6207745600082326
steps: 303
              lr: 0.0001
                              evaluation reward: 3.31
episode: 1466
                score: 4.0
                             memory length: 291823
                                                      epsilon: 0.6201884800082453
steps: 296
              lr: 0.0001
                              evaluation reward: 3.31
                score: 5.0
                             memory length: 292166
episode: 1467
                                                      epsilon: 0.6195093400082601
                              evaluation reward: 3.33
steps: 343
              lr: 0.0001
episode: 1468
                score: 1.0
                             memory length: 292335
                                                      epsilon: 0.6191747200082673
steps: 169
              lr: 0.0001
                              evaluation reward: 3.33
episode: 1469
                score: 5.0
                             memory length: 292658
                                                      epsilon: 0.6185351800082812
steps: 323
              lr: 0.0001
                              evaluation reward: 3.35
episode: 1470
                score: 3.0
                             memory length: 292883
                                                      epsilon: 0.6180896800082909
steps: 225
                              evaluation reward: 3.38
              lr: 0.0001
                              memory length: 293324
episode: 1471
                score: 10.0
                                                       epsilon:
0.6172165000083099
                                     lr: 0.0001
                      steps: 441
                                                    evaluation reward: 3.44
                                                      epsilon: 0.6165452800083244
episode: 1472
                score: 6.0
                              memory length: 293663
steps: 339
              lr: 0.0001
                              evaluation reward: 3.48
episode: 1473
                score: 4.0
                             memory length: 293937
                                                      epsilon: 0.6160027600083362
steps: 274
              lr: 0.0001
                              evaluation reward: 3.49
episode: 1474
                             memory length: 294134
                                                      epsilon: 0.6156127000083447
                score: 2.0
```

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lr: 0.0001
                             evaluation reward: 3.47
steps: 197
episode: 1475
                score: 3.0
                             memory length: 294362
                                                      epsilon: 0.6151612600083545
steps: 228
              lr: 0.0001
                             evaluation reward: 3.45
episode: 1476
                score: 2.0
                             memory length: 294560
                                                      epsilon: 0.614769220008363
steps: 198
              lr: 0.0001
                              evaluation reward: 3.41
episode: 1477
                             memory length: 294770
                score: 3.0
                                                      epsilon: 0.614353420008372
                             evaluation reward: 3.4
steps: 210
              lr: 0.0001
episode: 1478
                score: 4.0
                             memory length: 295037
                                                      epsilon: 0.6138247600083835
              lr: 0.0001
                             evaluation reward: 3.39
steps: 267
episode: 1479
                score: 3.0
                             memory length: 295247
                                                      epsilon: 0.6134089600083925
steps: 210
              lr: 0.0001
                             evaluation reward: 3.4
episode: 1480
                score: 7.0
                             memory length: 295611
                                                      epsilon: 0.6126882400084082
steps: 364
              lr: 0.0001
                             evaluation reward: 3.43
episode: 1481
                score: 5.0
                             memory length: 295904
                                                      epsilon: 0.6121081000084208
steps: 293
              lr: 0.0001
                             evaluation reward: 3.46
                             memory length: 296216
                                                      epsilon: 0.6114903400084342
episode: 1482
                score: 5.0
steps: 312
              lr: 0.0001
                             evaluation reward: 3.49
episode: 1483
                score: 4.0
                             memory length: 296496
                                                      epsilon: 0.6109359400084462
steps: 280
              lr: 0.0001
                             evaluation reward: 3.49
episode: 1484
                score: 1.0
                             memory length: 296667
                                                      epsilon: 0.6105973600084535
              lr: 0.0001
steps: 171
                             evaluation reward: 3.47
                             memory length: 296884
episode: 1485
                score: 2.0
                                                      epsilon: 0.6101677000084629
steps: 217
              lr: 0.0001
                             evaluation reward: 3.45
                             memory length: 297179
                                                      epsilon: 0.6095836000084756
episode: 1486
                score: 4.0
steps: 295
              lr: 0.0001
                             evaluation reward: 3.47
                             memory length: 297453
episode: 1487
                score: 4.0
                                                      epsilon: 0.6090410800084873
                             evaluation reward: 3.48
steps: 274
              lr: 0.0001
                                                      epsilon: 0.6084292600085006
episode: 1488
                score: 5.0
                             memory length: 297762
steps: 309
              lr: 0.0001
                             evaluation reward: 3.51
episode: 1489
                score: 2.0
                             memory length: 297960
                                                      epsilon: 0.6080372200085091
              lr: 0.0001
                             evaluation reward: 3.5
steps: 198
episode: 1490
                score: 4.0
                             memory length: 298258
                                                      epsilon: 0.6074471800085219
steps: 298
              lr: 0.0001
                             evaluation reward: 3.5
episode: 1491
                score: 5.0
                             memory length: 298564
                                                      epsilon: 0.6068413000085351
                             evaluation reward: 3.52
steps: 306
              lr: 0.0001
                                                      epsilon: 0.6062987800085469
episode: 1492
                score: 4.0
                             memory length: 298838
steps: 274
              lr: 0.0001
                              evaluation reward: 3.53
episode: 1493
                score: 3.0
                             memory length: 299065
                                                      epsilon: 0.6058493200085566
steps: 227
              lr: 0.0001
                             evaluation reward: 3.5
episode: 1494
                score: 3.0
                             memory length: 299296
                                                      epsilon: 0.6053919400085666
              lr: 0.0001
                             evaluation reward: 3.47
steps: 231
                             memory length: 299660
episode: 1495
                score: 6.0
                                                      epsilon: 0.6046712200085822
steps: 364
              lr: 0.0001
                             evaluation reward: 3.49
                                                      epsilon: 0.5964680800087603
episode: 1511
                score: 4.0
                             memory length: 303803
steps: 275
              lr: 0.0001
                             evaluation reward: 3.49
episode: 1512
                score: 5.0
                             memory length: 304098
                                                      epsilon: 0.595883980008773
steps: 295
              lr: 0.0001
                             evaluation reward: 3.5
episode: 1513
                             memory length: 304427
                                                      epsilon: 0.5952325600087871
                score: 5.0
```

```
lr: 0.0001
                              evaluation reward: 3.53
steps: 329
episode: 1514
                score: 4.0
                             memory length: 304685
                                                      epsilon: 0.5947217200087982
steps: 258
              lr: 0.0001
                              evaluation reward: 3.54
episode: 1515
                score: 4.0
                             memory length: 304960
                                                      epsilon: 0.59417722000881
steps: 275
              lr: 0.0001
                              evaluation reward: 3.57
episode: 1516
                             memory length: 305186
                score: 3.0
                                                      epsilon: 0.5937297400088197
steps: 226
              lr: 0.0001
                              evaluation reward: 3.57
episode: 1517
                score: 2.0
                             memory length: 305365
                                                      epsilon: 0.5933753200088274
              lr: 0.0001
                              evaluation reward: 3.55
steps: 179
episode: 1518
                score: 3.0
                             memory length: 305612
                                                      epsilon: 0.592886260008838
steps: 247
              lr: 0.0001
                              evaluation reward: 3.55
episode: 1519
                score: 4.0
                              memory length: 305887
                                                      epsilon: 0.5923417600088499
steps: 275
              lr: 0.0001
                              evaluation reward: 3.55
episode: 1520
                score: 4.0
                              memory length: 306165
                                                      epsilon: 0.5917913200088618
steps: 278
              lr: 0.0001
                              evaluation reward: 3.57
                             memory length: 306363
                                                      epsilon: 0.5913992800088703
episode: 1521
                score: 2.0
steps: 198
              lr: 0.0001
                              evaluation reward: 3.55
                score: 5.0
episode: 1522
                             memory length: 306686
                                                      epsilon: 0.5907597400088842
steps: 323
              lr: 0.0001
                              evaluation reward: 3.56
episode: 1523
                score: 5.0
                             memory length: 306991
                                                      epsilon: 0.5901558400088973
              lr: 0.0001
                              evaluation reward: 3.58
steps: 305
                             memory length: 307173
episode: 1524
                score: 2.0
                                                      epsilon: 0.5897954800089051
steps: 182
              lr: 0.0001
                              evaluation reward: 3.56
                             memory length: 307453
episode: 1525
                score: 4.0
                                                      epsilon: 0.5892410800089172
steps: 280
              lr: 0.0001
                              evaluation reward: 3.58
episode: 1526
                score: 3.0
                             memory length: 307662
                                                      epsilon: 0.5888272600089262
steps: 209
              lr: 0.0001
                              evaluation reward: 3.57
episode: 1527
                score: 4.0
                             memory length: 307937
                                                      epsilon: 0.588282760008938
steps: 275
              lr: 0.0001
                              evaluation reward: 3.58
episode: 1528
                score: 4.0
                             memory length: 308196
                                                      epsilon: 0.5877699400089491
              lr: 0.0001
steps: 259
                              evaluation reward: 3.6
episode: 1529
                score: 4.0
                             memory length: 308461
                                                      epsilon: 0.5872452400089605
steps: 265
              lr: 0.0001
                              evaluation reward: 3.61
                score: 5.0
                             memory length: 308774
episode: 1530
                                                      epsilon: 0.586625500008974
                              evaluation reward: 3.65
steps: 313
              lr: 0.0001
episode: 1531
                score: 4.0
                             memory length: 309036
                                                      epsilon: 0.5861067400089852
steps: 262
              lr: 0.0001
                              evaluation reward: 3.65
episode: 1532
                score: 5.0
                             memory length: 309384
                                                      epsilon: 0.5854177000090002
steps: 348
              lr: 0.0001
                              evaluation reward: 3.66
episode: 1533
                score: 3.0
                             memory length: 309609
                                                      epsilon: 0.5849722000090098
steps: 225
              lr: 0.0001
                              evaluation reward: 3.67
                              memory length: 309760
episode: 1534
                score: 1.0
                                                      epsilon: 0.5846732200090163
steps: 151
              lr: 0.0001
                              evaluation reward: 3.66
episode: 1535
                score: 2.0
                             memory length: 309957
                                                      epsilon: 0.5842831600090248
steps: 197
              lr: 0.0001
                              evaluation reward: 3.65
episode: 1536
                score: 4.0
                             memory length: 310213
                                                      epsilon: 0.5837762800090358
steps: 256
              lr: 0.0001
                              evaluation reward: 3.64
episode: 1537
                             memory length: 310441
                                                      epsilon: 0.5833248400090456
                score: 3.0
```

```
lr: 0.0001
                              evaluation reward: 3.65
steps: 228
episode: 1538
                score: 4.0
                             memory length: 310707
                                                      epsilon: 0.582798160009057
steps: 266
              lr: 0.0001
                              evaluation reward: 3.66
episode: 1539
                score: 3.0
                             memory length: 310935
                                                      epsilon: 0.5823467200090668
steps: 228
              lr: 0.0001
                              evaluation reward: 3.66
episode: 1540
                             memory length: 311310
                score: 7.0
                                                      epsilon: 0.581604220009083
steps: 375
              lr: 0.0001
                              evaluation reward: 3.68
episode: 1541
                score: 3.0
                             memory length: 311536
                                                      epsilon: 0.5811567400090927
              lr: 0.0001
                              evaluation reward: 3.65
steps: 226
episode: 1542
                score: 2.0
                             memory length: 311734
                                                      epsilon: 0.5807647000091012
steps: 198
              lr: 0.0001
                              evaluation reward: 3.64
episode: 1543
                score: 4.0
                              memory length: 311981
                                                      epsilon: 0.5802756400091118
steps: 247
              lr: 0.0001
                              evaluation reward: 3.63
episode: 1544
                score: 3.0
                              memory length: 312196
                                                      epsilon: 0.579849940009121
steps: 215
              lr: 0.0001
                              evaluation reward: 3.64
                             memory length: 312393
                                                      epsilon: 0.5794598800091295
episode: 1545
                score: 2.0
steps: 197
              lr: 0.0001
                              evaluation reward: 3.63
episode: 1546
                score: 1.0
                             memory length: 312563
                                                      epsilon: 0.5791232800091368
steps: 170
              lr: 0.0001
                              evaluation reward: 3.63
episode: 1547
                score: 1.0
                             memory length: 312713
                                                      epsilon: 0.5788262800091433
              lr: 0.0001
steps: 150
                              evaluation reward: 3.61
                             memory length: 312929
episode: 1548
                score: 2.0
                                                      epsilon: 0.5783986000091526
steps: 216
              lr: 0.0001
                              evaluation reward: 3.58
                             memory length: 313142
                                                      epsilon: 0.5779768600091617
episode: 1549
                score: 3.0
steps: 213
              lr: 0.0001
                              evaluation reward: 3.58
episode: 1550
                score: 2.0
                             memory length: 313358
                                                      epsilon: 0.577549180009171
steps: 216
              lr: 0.0001
                              evaluation reward: 3.55
episode: 1551
                score: 6.0
                             memory length: 313758
                                                      epsilon: 0.5767571800091882
steps: 400
              lr: 0.0001
                              evaluation reward: 3.57
episode: 1552
                score: 4.0
                             memory length: 314019
                                                      epsilon: 0.5762404000091994
steps: 261
              lr: 0.0001
                              evaluation reward: 3.58
episode: 1553
                score: 3.0
                             memory length: 314268
                                                      epsilon: 0.5757473800092101
steps: 249
              lr: 0.0001
                              evaluation reward: 3.58
episode: 1554
                score: 3.0
                             memory length: 314493
                                                      epsilon: 0.5753018800092198
                              evaluation reward: 3.58
steps: 225
              lr: 0.0001
                                                      epsilon: 0.5746603600092337
episode: 1555
                score: 5.0
                             memory length: 314817
steps: 324
              lr: 0.0001
                              evaluation reward: 3.61
episode: 1556
                score: 5.0
                             memory length: 315142
                                                      epsilon: 0.5740168600092477
steps: 325
              lr: 0.0001
                              evaluation reward: 3.63
episode: 1557
                score: 3.0
                             memory length: 315368
                                                      epsilon: 0.5735693800092574
steps: 226
              lr: 0.0001
                              evaluation reward: 3.62
                              memory length: 315663
episode: 1558
                score: 4.0
                                                      epsilon: 0.5729852800092701
steps: 295
              lr: 0.0001
                              evaluation reward: 3.63
episode: 1559
                score: 2.0
                             memory length: 315845
                                                      epsilon: 0.5726249200092779
steps: 182
              lr: 0.0001
                              evaluation reward: 3.62
episode: 1560
                score: 2.0
                             memory length: 316027
                                                      epsilon: 0.5722645600092857
steps: 182
              lr: 0.0001
                              evaluation reward: 3.61
episode: 1561
                             memory length: 316270
                                                      epsilon: 0.5717834200092962
                score: 4.0
```

```
lr: 0.0001
                              evaluation reward: 3.62
steps: 243
episode: 1562
                score: 4.0
                             memory length: 316563
                                                      epsilon: 0.5712032800093088
steps: 293
              lr: 0.0001
                              evaluation reward: 3.64
episode: 1563
                score: 2.0
                             memory length: 316760
                                                      epsilon: 0.5708132200093172
steps: 197
              lr: 0.0001
                              evaluation reward: 3.62
episode: 1564
                             memory length: 316989
                score: 3.0
                                                      epsilon: 0.5703598000093271
                              evaluation reward: 3.62
steps: 229
              lr: 0.0001
episode: 1565
                score: 6.0
                             memory length: 317365
                                                      epsilon: 0.5696153200093432
              lr: 0.0001
                              evaluation reward: 3.63
steps: 376
episode: 1566
                score: 4.0
                             memory length: 317659
                                                      epsilon: 0.5690332000093559
steps: 294
              lr: 0.0001
                              evaluation reward: 3.63
episode: 1567
                score: 2.0
                              memory length: 317877
                                                      epsilon: 0.5686015600093652
steps: 218
              lr: 0.0001
                              evaluation reward: 3.6
episode: 1568
                score: 2.0
                              memory length: 318074
                                                      epsilon: 0.5682115000093737
steps: 197
              lr: 0.0001
                              evaluation reward: 3.61
                             memory length: 318351
                                                      epsilon: 0.5676630400093856
episode: 1569
                score: 4.0
steps: 277
              lr: 0.0001
                              evaluation reward: 3.6
episode: 1570
                score: 2.0
                             memory length: 318549
                                                      epsilon: 0.5672710000093941
steps: 198
              lr: 0.0001
                              evaluation reward: 3.59
episode: 1571
                score: 5.0
                             memory length: 318871
                                                      epsilon: 0.566633440009408
              lr: 0.0001
steps: 322
                              evaluation reward: 3.54
                             memory length: 319158
episode: 1572
                score: 4.0
                                                      epsilon: 0.5660651800094203
steps: 287
              lr: 0.0001
                              evaluation reward: 3.52
                             memory length: 319355
                                                      epsilon: 0.5656751200094288
episode: 1573
                score: 2.0
steps: 197
              lr: 0.0001
                              evaluation reward: 3.5
episode: 1574
                score: 10.0
                              memory length: 319713
                                                       epsilon:
                                     lr: 0.0001
0.5649662800094442
                      steps: 358
                                                    evaluation reward: 3.58
episode: 1575
                score: 7.0
                              memory length: 320139
                                                      epsilon: 0.5641228000094625
              lr: 0.0001
steps: 426
                              evaluation reward: 3.62
episode: 1576
                score: 3.0
                             memory length: 320351
                                                      epsilon: 0.5637030400094716
steps: 212
              lr: 0.0001
                              evaluation reward: 3.63
episode: 1577
                score: 7.0
                             memory length: 320743
                                                      epsilon: 0.5629268800094884
steps: 392
              lr: 0.0001
                              evaluation reward: 3.67
                score: 6.0
                             memory length: 321070
episode: 1578
                                                      epsilon: 0.5622794200095025
                              evaluation reward: 3.69
steps: 327
              lr: 0.0001
                                                      epsilon: 0.5616973000095151
episode: 1579
                score: 4.0
                             memory length: 321364
steps: 294
              lr: 0.0001
                              evaluation reward: 3.7
episode: 1580
                score: 3.0
                             memory length: 321610
                                                      epsilon: 0.5612102200095257
                              evaluation reward: 3.66
steps: 246
              lr: 0.0001
episode: 1581
                score: 6.0
                             memory length: 321948
                                                      epsilon: 0.5605409800095402
steps: 338
              lr: 0.0001
                              evaluation reward: 3.67
                              memory length: 322228
episode: 1582
                score: 4.0
                                                      epsilon: 0.5599865800095523
steps: 280
              lr: 0.0001
                              evaluation reward: 3.66
                                                      epsilon: 0.5593708000095656
episode: 1583
                score: 5.0
                             memory length: 322539
steps: 311
              lr: 0.0001
                              evaluation reward: 3.67
episode: 1584
                score: 5.0
                             memory length: 322857
                                                      epsilon: 0.5587411600095793
steps: 318
              lr: 0.0001
                              evaluation reward: 3.71
episode: 1585
                             memory length: 323101
                                                      epsilon: 0.5582580400095898
                score: 3.0
```

```
lr: 0.0001
                              evaluation reward: 3.72
steps: 244
episode: 1586
                score: 5.0
                             memory length: 323391
                                                      epsilon: 0.5576838400096022
steps: 290
              lr: 0.0001
                              evaluation reward: 3.73
episode: 1587
                score: 3.0
                             memory length: 323620
                                                      epsilon: 0.5572304200096121
steps: 229
              lr: 0.0001
                              evaluation reward: 3.72
episode: 1588
                score: 3.0
                             memory length: 323847
                                                      epsilon: 0.5567809600096219
steps: 227
              lr: 0.0001
                              evaluation reward: 3.7
episode: 1589
                score: 3.0
                             memory length: 324114
                                                      epsilon: 0.5562523000096333
              lr: 0.0001
                              evaluation reward: 3.71
steps: 267
episode: 1590
                score: 3.0
                             memory length: 324325
                                                      epsilon: 0.5558345200096424
steps: 211
              lr: 0.0001
                              evaluation reward: 3.7
episode: 1591
                score: 6.0
                              memory length: 324685
                                                      epsilon: 0.5551217200096579
steps: 360
              lr: 0.0001
                              evaluation reward: 3.71
episode: 1592
                score: 5.0
                              memory length: 325029
                                                      epsilon: 0.5544406000096727
steps: 344
              lr: 0.0001
                              evaluation reward: 3.72
                             memory length: 325179
                                                      epsilon: 0.5541436000096791
episode: 1593
                score: 1.0
steps: 150
              lr: 0.0001
                              evaluation reward: 3.7
episode: 1594
                score: 3.0
                             memory length: 325426
                                                      epsilon: 0.5536545400096897
steps: 247
              lr: 0.0001
                              evaluation reward: 3.7
episode: 1595
                score: 4.0
                             memory length: 325691
                                                      epsilon: 0.5531298400097011
              lr: 0.0001
                              evaluation reward: 3.68
steps: 265
                             memory length: 326019
episode: 1596
                score: 5.0
                                                      epsilon: 0.5524804000097152
steps: 328
              lr: 0.0001
                              evaluation reward: 3.7
                             memory length: 326276
                                                      epsilon: 0.5519715400097263
episode: 1597
                score: 4.0
steps: 257
              lr: 0.0001
                              evaluation reward: 3.72
episode: 1598
                score: 6.0
                             memory length: 326615
                                                      epsilon: 0.5513003200097408
                              evaluation reward: 3.75
steps: 339
              lr: 0.0001
episode: 1599
                score: 7.0
                              memory length: 327009
                                                      epsilon: 0.5505202000097578
steps: 394
              lr: 0.0001
                              evaluation reward: 3.79
episode: 1600
                score: 1.0
                             memory length: 327177
                                                      epsilon: 0.550187560009765
steps: 168
              lr: 0.0001
                              evaluation reward: 3.75
episode: 1601
                score: 8.0
                             memory length: 327597
                                                      epsilon: 0.549355960009783
steps: 420
              lr: 0.0001
                              evaluation reward: 3.8
episode: 1602
                score: 2.0
                             memory length: 327796
                                                      epsilon: 0.5489619400097916
                              evaluation reward: 3.76
steps: 199
              lr: 0.0001
                                                      epsilon: 0.5484689200098023
episode: 1603
                score: 7.0
                             memory length: 328045
steps: 249
              lr: 0.0001
                              evaluation reward: 3.79
episode: 1604
                score: 3.0
                             memory length: 328273
                                                      epsilon: 0.5480174800098121
steps: 228
              lr: 0.0001
                              evaluation reward: 3.79
episode: 1605
                score: 4.0
                             memory length: 328555
                                                      epsilon: 0.5474591200098242
steps: 282
              lr: 0.0001
                              evaluation reward: 3.8
                              memory length: 328851
episode: 1606
                score: 4.0
                                                      epsilon: 0.5468730400098369
steps: 296
              lr: 0.0001
                              evaluation reward: 3.81
episode: 1607
                score: 8.0
                             memory length: 329245
                                                      epsilon: 0.5460929200098539
steps: 394
              lr: 0.0001
                              evaluation reward: 3.84
episode: 1608
                score: 0.0
                             memory length: 329367
                                                      epsilon: 0.5458513600098591
steps: 122
              lr: 0.0001
                              evaluation reward: 3.81
episode: 1609
                score: 4.0
                             memory length: 329642
                                                      epsilon: 0.5453068600098709
```

```
lr: 0.0001
                              evaluation reward: 3.81
steps: 275
episode: 1610
                score: 2.0
                             memory length: 329840
                                                      epsilon: 0.5449148200098795
steps: 198
              lr: 0.0001
                              evaluation reward: 3.8
episode: 1611
                score: 6.0
                             memory length: 330233
                                                      epsilon: 0.5441366800098963
steps: 393
              lr: 0.0001
                              evaluation reward: 3.82
episode: 1612
                score: 4.0
                             memory length: 330533
                                                      epsilon: 0.5435426800099092
steps: 300
              lr: 0.0001
                              evaluation reward: 3.81
episode: 1613
                score: 4.0
                             memory length: 330792
                                                      epsilon: 0.5430298600099204
              lr: 0.0001
                              evaluation reward: 3.8
steps: 259
episode: 1614
                score: 2.0
                             memory length: 330974
                                                      epsilon: 0.5426695000099282
steps: 182
              lr: 0.0001
                              evaluation reward: 3.78
episode: 1615
                score: 2.0
                              memory length: 331155
                                                      epsilon: 0.542311120009936
steps: 181
              lr: 0.0001
                              evaluation reward: 3.76
                              memory length: 331335
episode: 1616
                score: 2.0
                                                      epsilon: 0.5419547200099437
steps: 180
              lr: 0.0001
                              evaluation reward: 3.75
                             memory length: 331517
                                                      epsilon: 0.5415943600099515
episode: 1617
                score: 2.0
steps: 182
              lr: 0.0001
                              evaluation reward: 3.75
episode: 1618
                score: 7.0
                             memory length: 331934
                                                      epsilon: 0.5407687000099695
steps: 417
              lr: 0.0001
                              evaluation reward: 3.79
episode: 1619
                score: 5.0
                             memory length: 332254
                                                      epsilon: 0.5401351000099832
steps: 320
              lr: 0.0001
                              evaluation reward: 3.8
                             memory length: 332510
episode: 1620
                score: 4.0
                                                      epsilon: 0.5396282200099942
steps: 256
              lr: 0.0001
                              evaluation reward: 3.8
                score: 4.0
                             memory length: 332805
                                                      epsilon: 0.5390441200100069
episode: 1621
steps: 295
              lr: 0.0001
                              evaluation reward: 3.82
                             memory length: 333052
episode: 1622
                score: 3.0
                                                      epsilon: 0.5385550600100175
                              evaluation reward: 3.8
steps: 247
              lr: 0.0001
episode: 1623
                score: 4.0
                             memory length: 333328
                                                      epsilon: 0.5380085800100294
steps: 276
              lr: 0.0001
                              evaluation reward: 3.79
episode: 1624
                score: 3.0
                             memory length: 333574
                                                      epsilon: 0.53752150001004
steps: 246
              lr: 0.0001
                              evaluation reward: 3.8
episode: 1625
                score: 6.0
                             memory length: 333916
                                                      epsilon: 0.5368443400100547
steps: 342
              lr: 0.0001
                              evaluation reward: 3.82
episode: 1626
                score: 5.0
                             memory length: 334261
                                                      epsilon: 0.5361612400100695
              lr: 0.0001
                              evaluation reward: 3.84
steps: 345
episode: 1627
                score: 3.0
                             memory length: 334490
                                                      epsilon: 0.5357078200100793
steps: 229
              lr: 0.0001
                              evaluation reward: 3.83
episode: 1628
                score: 3.0
                             memory length: 334735
                                                      epsilon: 0.5352227200100899
steps: 245
              lr: 0.0001
                              evaluation reward: 3.82
                             memory length: 335014
episode: 1629
                score: 4.0
                                                      epsilon: 0.5346703000101019
steps: 279
              lr: 0.0001
                              evaluation reward: 3.82
                              memory length: 335246
episode: 1630
                score: 3.0
                                                      epsilon: 0.5342109400101118
steps: 232
              lr: 0.0001
                              evaluation reward: 3.8
episode: 1631
                score: 3.0
                             memory length: 335472
                                                      epsilon: 0.5337634600101215
steps: 226
              lr: 0.0001
                              evaluation reward: 3.79
episode: 1632
                score: 4.0
                             memory length: 335769
                                                      epsilon: 0.5331754000101343
steps: 297
              lr: 0.0001
                              evaluation reward: 3.78
episode: 1633
                score: 0.0
                             memory length: 335891
                                                      epsilon: 0.5329338400101395
```

```
lr: 0.0001
                              evaluation reward: 3.75
steps: 122
episode: 1634
                score: 6.0
                             memory length: 336234
                                                      epsilon: 0.5322547000101543
steps: 343
              lr: 0.0001
                              evaluation reward: 3.8
episode: 1635
                score: 3.0
                             memory length: 336462
                                                      epsilon: 0.5318032600101641
steps: 228
              lr: 0.0001
                              evaluation reward: 3.81
episode: 1636
                score: 4.0
                             memory length: 336719
                                                      epsilon: 0.5312944000101751
steps: 257
              lr: 0.0001
                              evaluation reward: 3.81
episode: 1637
                score: 2.0
                             memory length: 336916
                                                      epsilon: 0.5309043400101836
              lr: 0.0001
                              evaluation reward: 3.8
steps: 197
episode: 1638
                score: 6.0
                             memory length: 337260
                                                      epsilon: 0.5302232200101984
steps: 344
              lr: 0.0001
                              evaluation reward: 3.82
episode: 1639
                score: 3.0
                              memory length: 337508
                                                      epsilon: 0.529732180010209
steps: 248
              lr: 0.0001
                              evaluation reward: 3.82
episode: 1640
                score: 2.0
                              memory length: 337705
                                                      epsilon: 0.5293421200102175
steps: 197
              lr: 0.0001
                              evaluation reward: 3.77
                             memory length: 337931
                                                      epsilon: 0.5288946400102272
episode: 1641
                score: 3.0
steps: 226
              lr: 0.0001
                              evaluation reward: 3.77
episode: 1642
                score: 3.0
                             memory length: 338156
                                                      epsilon: 0.5284491400102369
steps: 225
              lr: 0.0001
                              evaluation reward: 3.78
episode: 1643
                score: 2.0
                             memory length: 338353
                                                      epsilon: 0.5280590800102454
steps: 197
              lr: 0.0001
                              evaluation reward: 3.76
                             memory length: 338504
episode: 1644
                score: 1.0
                                                      epsilon: 0.5277601000102519
steps: 151
              lr: 0.0001
                              evaluation reward: 3.74
                score: 5.0
                             memory length: 338807
                                                      epsilon: 0.5271601600102649
episode: 1645
steps: 303
              lr: 0.0001
                              evaluation reward: 3.77
                             memory length: 339050
episode: 1646
                score: 3.0
                                                      epsilon: 0.5266790200102753
                              evaluation reward: 3.79
steps: 243
              lr: 0.0001
                                                      epsilon: 0.5264374600102806
episode: 1647
                score: 0.0
                             memory length: 339172
steps: 122
              lr: 0.0001
                              evaluation reward: 3.78
episode: 1648
                score: 3.0
                             memory length: 339419
                                                      epsilon: 0.5259484000102912
steps: 247
              lr: 0.0001
                              evaluation reward: 3.79
episode: 1649
                score: 3.0
                             memory length: 339645
                                                      epsilon: 0.5255009200103009
steps: 226
              lr: 0.0001
                              evaluation reward: 3.79
episode: 1650
                score: 2.0
                             memory length: 339827
                                                      epsilon: 0.5251405600103087
                              evaluation reward: 3.79
steps: 182
              lr: 0.0001
episode: 1651
                score: 4.0
                             memory length: 340103
                                                      epsilon: 0.5245940800103206
steps: 276
              lr: 0.0001
                              evaluation reward: 3.77
episode: 1652
                score: 3.0
                             memory length: 340328
                                                      epsilon: 0.5241485800103303
steps: 225
              lr: 0.0001
                              evaluation reward: 3.76
                             memory length: 340509
episode: 1653
                score: 2.0
                                                      epsilon: 0.523790200010338
steps: 181
              lr: 0.0001
                              evaluation reward: 3.75
                              memory length: 340755
episode: 1654
                score: 3.0
                                                      epsilon: 0.5233031200103486
steps: 246
              lr: 0.0001
                              evaluation reward: 3.75
episode: 1655
                score: 2.0
                             memory length: 340955
                                                      epsilon: 0.5229071200103572
steps: 200
              lr: 0.0001
                              evaluation reward: 3.72
episode: 1656
                score: 4.0
                             memory length: 341271
                                                      epsilon: 0.5222814400103708
steps: 316
              lr: 0.0001
                              evaluation reward: 3.71
episode: 1657
                             memory length: 341565
                                                      epsilon: 0.5216993200103834
                score: 8.0
```

```
lr: 0.0001
                              evaluation reward: 3.76
steps: 294
episode: 1658
                score: 3.0
                             memory length: 341811
                                                      epsilon: 0.521212240010394
steps: 246
              lr: 0.0001
                              evaluation reward: 3.75
                score: 4.0
                             memory length: 342085
episode: 1659
                                                      epsilon: 0.5206697200104058
steps: 274
              lr: 0.0001
                              evaluation reward: 3.77
episode: 1660
                score: 3.0
                             memory length: 342311
                                                      epsilon: 0.5202222400104155
steps: 226
              lr: 0.0001
                              evaluation reward: 3.78
episode: 1661
                score: 3.0
                             memory length: 342536
                                                      epsilon: 0.5197767400104252
              lr: 0.0001
                              evaluation reward: 3.77
steps: 225
episode: 1662
                score: 2.0
                             memory length: 342716
                                                      epsilon: 0.5194203400104329
steps: 180
              lr: 0.0001
                              evaluation reward: 3.75
episode: 1663
                score: 2.0
                              memory length: 342897
                                                      epsilon: 0.5190619600104407
steps: 181
              lr: 0.0001
                              evaluation reward: 3.75
episode: 1664
                score: 3.0
                              memory length: 343122
                                                      epsilon: 0.5186164600104504
steps: 225
              lr: 0.0001
                              evaluation reward: 3.75
                             memory length: 343348
                                                      epsilon: 0.5181689800104601
episode: 1665
                score: 3.0
steps: 226
              lr: 0.0001
                              evaluation reward: 3.72
episode: 1666
                score: 5.0
                             memory length: 343654
                                                      epsilon: 0.5175631000104732
steps: 306
              lr: 0.0001
                              evaluation reward: 3.73
episode: 1667
                score: 2.0
                             memory length: 343834
                                                      epsilon: 0.517206700010481
steps: 180
              lr: 0.0001
                              evaluation reward: 3.73
                             memory length: 344033
episode: 1668
                score: 2.0
                                                      epsilon: 0.5168126800104895
steps: 199
              lr: 0.0001
                              evaluation reward: 3.73
                             memory length: 344215
                                                      epsilon: 0.5164523200104973
episode: 1669
                score: 2.0
steps: 182
              lr: 0.0001
                              evaluation reward: 3.71
episode: 1670
                score: 2.0
                             memory length: 344432
                                                      epsilon: 0.5160226600105067
steps: 217
              lr: 0.0001
                              evaluation reward: 3.71
                                                      epsilon: 0.5156009200105158
episode: 1671
                score: 3.0
                             memory length: 344645
steps: 213
              lr: 0.0001
                              evaluation reward: 3.69
episode: 1672
                score: 4.0
                             memory length: 344923
                                                      epsilon: 0.5150504800105278
steps: 278
              lr: 0.0001
                              evaluation reward: 3.69
episode: 1673
                score: 6.0
                             memory length: 345286
                                                      epsilon: 0.5143317400105434
steps: 363
              lr: 0.0001
                              evaluation reward: 3.73
episode: 1674
                score: 6.0
                             memory length: 345603
                                                      epsilon: 0.513704080010557
                              evaluation reward: 3.69
steps: 317
              lr: 0.0001
episode: 1675
                score: 2.0
                             memory length: 345801
                                                      epsilon: 0.5133120400105655
steps: 198
              lr: 0.0001
                              evaluation reward: 3.64
episode: 1676
                score: 2.0
                             memory length: 345982
                                                      epsilon: 0.5129536600105733
steps: 181
              lr: 0.0001
                              evaluation reward: 3.63
episode: 1677
                score: 3.0
                             memory length: 346229
                                                      epsilon: 0.5124646000105839
steps: 247
              lr: 0.0001
                              evaluation reward: 3.59
                              memory length: 346521
episode: 1678
                score: 5.0
                                                      epsilon: 0.5118864400105965
steps: 292
              lr: 0.0001
                              evaluation reward: 3.58
episode: 1679
                score: 6.0
                             memory length: 346867
                                                      epsilon: 0.5112013600106113
steps: 346
              lr: 0.0001
                              evaluation reward: 3.6
episode: 1680
                score: 2.0
                             memory length: 347064
                                                      epsilon: 0.5108113000106198
steps: 197
              lr: 0.0001
                              evaluation reward: 3.59
episode: 1681
                             memory length: 347264
                                                      epsilon: 0.5104153000106284
                score: 2.0
```

```
lr: 0.0001
                              evaluation reward: 3.55
steps: 200
episode: 1682
                score: 3.0
                             memory length: 347512
                                                      epsilon: 0.5099242600106391
steps: 248
              lr: 0.0001
                              evaluation reward: 3.54
episode: 1683
                score: 2.0
                             memory length: 347712
                                                      epsilon: 0.5095282600106477
steps: 200
              lr: 0.0001
                              evaluation reward: 3.51
episode: 1684
                             memory length: 347945
                score: 3.0
                                                      epsilon: 0.5090669200106577
steps: 233
              lr: 0.0001
                              evaluation reward: 3.49
episode: 1685
                score: 6.0
                             memory length: 348303
                                                      epsilon: 0.5083580800106731
                              evaluation reward: 3.52
steps: 358
              lr: 0.0001
episode: 1686
                score: 2.0
                             memory length: 348500
                                                      epsilon: 0.5079680200106815
steps: 197
              lr: 0.0001
                              evaluation reward: 3.49
episode: 1687
                score: 4.0
                              memory length: 348815
                                                      epsilon: 0.5073443200106951
steps: 315
              lr: 0.0001
                              evaluation reward: 3.5
                              memory length: 349013
episode: 1688
                score: 2.0
                                                      epsilon: 0.5069522800107036
steps: 198
              lr: 0.0001
                              evaluation reward: 3.49
                             memory length: 349226
                                                      epsilon: 0.5065305400107127
episode: 1689
                score: 3.0
steps: 213
              lr: 0.0001
                              evaluation reward: 3.49
episode: 1690
                score: 5.0
                             memory length: 349542
                                                      epsilon: 0.5059048600107263
steps: 316
              lr: 0.0001
                              evaluation reward: 3.51
episode: 1691
                score: 2.0
                             memory length: 349723
                                                      epsilon: 0.5055464800107341
steps: 181
              lr: 0.0001
                              evaluation reward: 3.47
                             memory length: 349923
episode: 1692
                score: 2.0
                                                      epsilon: 0.5051504800107427
steps: 200
              lr: 0.0001
                              evaluation reward: 3.44
episode: 1693
                             memory length: 350104
                                                      epsilon: 0.5047921000107505
                score: 2.0
steps: 181
              lr: 0.0001
                              evaluation reward: 3.45
                             memory length: 350384
episode: 1694
                score: 4.0
                                                      epsilon: 0.5042377000107625
                              evaluation reward: 3.46
steps: 280
              lr: 0.0001
episode: 1695
                score: 4.0
                              memory length: 350680
                                                      epsilon: 0.5036516200107752
steps: 296
              lr: 0.0001
                              evaluation reward: 3.46
episode: 1696
                score: 2.0
                             memory length: 350861
                                                      epsilon: 0.503293240010783
steps: 181
              lr: 0.0001
                              evaluation reward: 3.43
episode: 1697
                score: 4.0
                             memory length: 351121
                                                      epsilon: 0.5027784400107942
steps: 260
              lr: 0.0001
                              evaluation reward: 3.43
episode: 1698
                score: 3.0
                             memory length: 351369
                                                      epsilon: 0.5022874000108049
                              evaluation reward: 3.4
steps: 248
              lr: 0.0001
episode: 1699
                score: 3.0
                             memory length: 351597
                                                      epsilon: 0.5018359600108147
steps: 228
              lr: 0.0001
                              evaluation reward: 3.36
episode: 1700
                score: 5.0
                             memory length: 351921
                                                      epsilon: 0.5011944400108286
                              evaluation reward: 3.4
steps: 324
              lr: 0.0001
episode: 1701
                score: 4.0
                             memory length: 352237
                                                      epsilon: 0.5005687600108422
steps: 316
              lr: 0.0001
                              evaluation reward: 3.36
                              memory length: 352436
                                                      epsilon: 0.5001747400108507
episode: 1702
                score: 2.0
steps: 199
              lr: 0.0001
                              evaluation reward: 3.36
episode: 1703
                score: 5.0
                             memory length: 352718
                                                      epsilon:
0.49961638001085207
                       steps: 282
                                      lr: 0.0001
                                                     evaluation reward: 3.34
episode: 1704
                score: 2.0
                             memory length: 352915
                                                      epsilon: 0.4992263200108496
steps: 197
              lr: 0.0001
                              evaluation reward: 3.33
episode: 1705
                             memory length: 353161
                                                      epsilon: 0.4987392400108465
                score: 3.0
```

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lr: 0.0001
                              evaluation reward: 3.32
steps: 246
episode: 1706
                score: 7.0
                             memory length: 353584
                                                      epsilon: 0.4979017000108412
steps: 423
              lr: 0.0001
                              evaluation reward: 3.35
episode: 1707
                score: 2.0
                             memory length: 353765
                                                      epsilon:
0.49754332001083895
                       steps: 181
                                      lr: 0.0001
                                                     evaluation reward: 3.29
                             memory length: 354024
                                                      epsilon: 0.4970305000108357
episode: 1708
                score: 4.0
steps: 259
              lr: 0.0001
                              evaluation reward: 3.33
episode: 1709
                score: 2.0
                             memory length: 354205
                                                      epsilon:
0.49667212001083344
                                      lr: 0.0001
                                                     evaluation reward: 3.31
                       steps: 181
                score: 5.0
episode: 1710
                             memory length: 354485
                                                      epsilon:
0.49611772001082993
                       steps: 280
                                      lr: 0.0001
                                                     evaluation reward: 3.34
                                                      epsilon: 0.4957791400108278
episode: 1711
                score: 1.0
                             memory length: 354656
              lr: 0.0001
steps: 171
                              evaluation reward: 3.29
                             memory length: 354884
episode: 1712
                score: 3.0
                                                      epsilon:
0.49532770001082493
                       steps: 228
                                      lr: 0.0001
                                                     evaluation reward: 3.28
                             memory length: 355177
episode: 1713
                score: 5.0
                                                      epsilon:
0.49474756001082126
                       steps: 293
                                      lr: 0.0001
                                                     evaluation reward: 3.29
                                                      epsilon: 0.4944505600108194
episode: 1714
                score: 1.0
                             memory length: 355327
              lr: 0.0001
                              evaluation reward: 3.28
steps: 150
episode: 1715
                score: 3.0
                             memory length: 355555
                                                      epsilon:
0.49399912001081653
                       steps: 228
                                      lr: 0.0001
                                                     evaluation reward: 3.29
                                                      epsilon: 0.4935536200108137
episode: 1716
                score: 3.0
                             memory length: 355780
steps: 225
              lr: 0.0001
                              evaluation reward: 3.3
                             memory length: 355992
                                                      epsilon:
episode: 1717
                score: 3.0
0.49313386001081105
                       steps: 212
                                      lr: 0.0001
                                                     evaluation reward: 3.31
episode: 1718
                score: 4.0
                             memory length: 356266
                                                      epsilon: 0.4925913400108076
                              evaluation reward: 3.28
steps: 274
              lr: 0.0001
episode: 1719
                score: 4.0
                             memory length: 356521
                                                      epsilon: 0.4920864400108044
steps: 255
              lr: 0.0001
                              evaluation reward: 3.27
episode: 1720
                score: 3.0
                             memory length: 356730
                                                      epsilon: 0.4916726200108018
steps: 209
              lr: 0.0001
                              evaluation reward: 3.26
episode: 1721
                score: 2.0
                             memory length: 356928
                                                      epsilon:
0.49128058001079933
                       steps: 198
                                      lr: 0.0001
                                                     evaluation reward: 3.24
                score: 3.0
                             memory length: 357174
episode: 1722
                                                      epsilon:
                       steps: 246
0.49079350001079625
                                      lr: 0.0001
                                                     evaluation reward: 3.24
episode: 1723
                score: 7.0
                             memory length: 357534
                                                      epsilon:
0.49008070001079174
                       steps: 360
                                      lr: 0.0001
                                                     evaluation reward: 3.27
episode: 1724
                score: 1.0
                             memory length: 357705
                                                      epsilon: 0.4897421200107896
              lr: 0.0001
steps: 171
                              evaluation reward: 3.25
episode: 1725
                score: 4.0
                             memory length: 357987
                                                      epsilon:
0.48918376001078606
                                      lr: 0.0001
                                                     evaluation reward: 3.23
                       steps: 282
                             memory length: 358184
                                                      epsilon: 0.4887937000107836
episode: 1726
                score: 2.0
              lr: 0.0001
                              evaluation reward: 3.2
steps: 197
                                                      epsilon: 0.4882135600107799
episode: 1727
                score: 4.0
                             memory length: 358477
steps: 293
              lr: 0.0001
                              evaluation reward: 3.21
episode: 1728
                score: 5.0
                             memory length: 358783
                                                      epsilon: 0.4876076800107761
steps: 306
              lr: 0.0001
                              evaluation reward: 3.23
episode: 1729
                             memory length: 359026
                score: 4.0
                                                      epsilon:
```

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0.48712654001077305
                       steps: 243
                                                      evaluation reward: 3.23
                                      lr: 0.0001
                                                       epsilon: 0.4867067800107704
episode: 1730
                score: 3.0
                             memory length: 359238
              lr: 0.0001
steps: 212
                              evaluation reward: 3.23
episode: 1731
                score: 10.0
                              memory length: 359677
                                                        epsilon:
0.4858375600107649
                      steps: 439
                                     lr: 0.0001
                                                     evaluation reward: 3.3
                              memory length: 359952
episode: 1732
                score: 4.0
                                                       epsilon:
0.48529306001076145
                       steps: 275
                                      lr: 0.0001
                                                      evaluation reward: 3.3
                score: 5.0
episode: 1733
                              memory length: 360298
                                                       epsilon: 0.4846079800107571
steps: 346
              lr: 0.0001
                              evaluation reward: 3.35
episode: 1734
                score: 2.0
                             memory length: 360479
                                                       epsilon:
0.48424960001075484
                                      lr: 0.0001
                                                      evaluation reward: 3.31
                       steps: 181
episode: 1735
                score: 4.0
                              memory length: 360776
                                                       epsilon: 0.4836615400107511
                              evaluation reward: 3.32
steps: 297
              lr: 0.0001
episode: 1736
                score: 3.0
                              memory length: 361002
                                                       epsilon: 0.4832140600107483
steps: 226
              lr: 0.0001
                              evaluation reward: 3.31
                             memory length: 361396
episode: 1737
                score: 7.0
                                                       epsilon:
0.48243394001074336
                       steps: 394
                                      lr: 0.0001
                                                      evaluation reward: 3.36
                score: 5.0
                             memory length: 361700
episode: 1738
                                                       epsilon:
0.48183202001073955
                       steps: 304
                                      lr: 0.0001
                                                      evaluation reward: 3.35
episode: 1739
                score: 6.0
                              memory length: 362059
                                                       epsilon:
                                      lr: 0.0001
0.48112120001073505
                       steps: 359
                                                      evaluation reward: 3.38
episode: 1740
                score: 6.0
                              memory length: 362412
                                                       epsilon:
0.48042226001073063
                       steps: 353
                                      lr: 0.0001
                                                      evaluation reward: 3.42
episode: 1741
                score: 3.0
                             memory length: 362641
                                                       epsilon:
0.47996884001072776
                       steps: 229
                                      lr: 0.0001
                                                      evaluation reward: 3.42
                score: 5.0
episode: 1742
                              memory length: 362936
                                                       epsilon:
0.47938474001072406
                       steps: 295
                                      lr: 0.0001
                                                      evaluation reward: 3.44
episode: 1743
                score: 2.0
                              memory length: 363135
                                                       epsilon:
                                                      evaluation reward: 3.44
0.47899072001072157
                       steps: 199
                                      lr: 0.0001
episode: 1744
                score: 5.0
                              memory length: 363448
                                                       epsilon:
0.47837098001071765
                       steps: 313
                                                      evaluation reward: 3.48
                                      lr: 0.0001
                                                       epsilon: 0.4778561800107144
episode: 1745
                score: 4.0
                              memory length: 363708
                              evaluation reward: 3.47
steps: 260
              lr: 0.0001
                                                       epsilon: 0.4771473400107099
episode: 1746
                score: 6.0
                              memory length: 364066
                              evaluation reward: 3.5
steps: 358
              lr: 0.0001
                                                       epsilon: 0.4765097800107059
episode: 1747
                score: 5.0
                              memory length: 364388
steps: 322
              lr: 0.0001
                              evaluation reward: 3.55
episode: 1748
                              memory length: 364637
                score: 3.0
                                                       epsilon:
                                                      evaluation reward: 3.55
0.47601676001070276
                       steps: 249
                                      lr: 0.0001
episode: 1749
                score: 5.0
                              memory length: 364947
                                                       epsilon:
                                      lr: 0.0001
                                                      evaluation reward: 3.57
0.47540296001069887
                       steps: 310
                              memory length: 365069
episode: 1750
                score: 0.0
                                                       epsilon:
0.47516140001069734
                        steps: 122
                                      lr: 0.0001
                                                      evaluation reward: 3.55
                                                       epsilon: 0.4746188800106939
episode: 1751
                score: 4.0
                              memory length: 365343
steps: 274
              lr: 0.0001
                              evaluation reward: 3.55
episode: 1752
                score: 2.0
                              memory length: 365545
                                                       epsilon: 0.4742189200106914
steps: 202
              lr: 0.0001
                              evaluation reward: 3.54
episode: 1753
                             memory length: 365888
                                                       epsilon: 0.4735397800106871
                score: 6.0
```

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lr: 0.0001
                              evaluation reward: 3.58
steps: 343
episode: 1754
                score: 4.0
                             memory length: 366182
                                                      epsilon: 0.4729576600106834
steps: 294
              lr: 0.0001
                              evaluation reward: 3.59
episode: 1755
                score: 6.0
                              memory length: 366547
                                                      epsilon:
0.47223496001067883
                       steps: 365
                                      lr: 0.0001
                                                      evaluation reward: 3.63
                score: 4.0
                              memory length: 366842
episode: 1756
                                                      epsilon:
0.47165086001067513
                       steps: 295
                                      lr: 0.0001
                                                      evaluation reward: 3.63
episode: 1757
                score: 6.0
                              memory length: 367163
                                                      epsilon: 0.4710152800106711
                              evaluation reward: 3.61
steps: 321
              lr: 0.0001
episode: 1758
                score: 4.0
                              memory length: 367435
                                                      epsilon: 0.4704767200106677
steps: 272
              lr: 0.0001
                              evaluation reward: 3.62
episode: 1759
                score: 5.0
                              memory length: 367749
                                                      epsilon:
0.46985500001066377
                       steps: 314
                                      lr: 0.0001
                                                      evaluation reward: 3.63
                                                      epsilon: 0.4693679200106607
episode: 1760
                score: 3.0
                              memory length: 367995
steps: 246
              lr: 0.0001
                              evaluation reward: 3.63
                             memory length: 368264
                                                      epsilon: 0.4688353000106573
episode: 1761
                score: 3.0
steps: 269
              lr: 0.0001
                              evaluation reward: 3.63
episode: 1762
                              memory length: 368461
                                                      epsilon:
                score: 2.0
0.46844524001065485
                       steps: 197
                                      lr: 0.0001
                                                      evaluation reward: 3.63
episode: 1763
                score: 4.0
                              memory length: 368738
                                                      epsilon: 0.4678967800106514
                              evaluation reward: 3.65
steps: 277
              lr: 0.0001
                              memory length: 368997
episode: 1764
                score: 4.0
                                                      epsilon:
                       steps: 259
0.46738396001064814
                                      lr: 0.0001
                                                      evaluation reward: 3.66
                score: 4.0
                                                      epsilon: 0.4668711400106449
episode: 1765
                             memory length: 369256
steps: 259
              lr: 0.0001
                              evaluation reward: 3.67
episode: 1766
                score: 8.0
                              memory length: 369699
                                                      epsilon:
0.46599400001063934
                       steps: 443
                                      lr: 0.0001
                                                      evaluation reward: 3.7
episode: 1767
                score: 7.0
                              memory length: 370083
                                                      epsilon:
                                      lr: 0.0001
                                                      evaluation reward: 3.75
0.46523368001063453
                       steps: 384
episode: 1768
                score: 2.0
                              memory length: 370280
                                                      epsilon:
0.46484362001063206
                       steps: 197
                                                      evaluation reward: 3.75
                                      lr: 0.0001
                                                      epsilon: 0.4642654600106284
episode: 1769
                score: 4.0
                              memory length: 370572
              lr: 0.0001
steps: 292
                              evaluation reward: 3.77
episode: 1770
                              memory length: 370869
                                                      epsilon: 0.4636774000106247
                score: 4.0
                              evaluation reward: 3.79
steps: 297
              lr: 0.0001
episode: 1771
                score: 3.0
                              memory length: 371094
                                                      epsilon:
                                      lr: 0.0001
0.46323190001062187
                       steps: 225
                                                      evaluation reward: 3.79
episode: 1772
                score: 5.0
                             memory length: 371419
                                                      epsilon: 0.4625884000106178
steps: 325
              lr: 0.0001
                              evaluation reward: 3.8
episode: 1773
                score: 6.0
                              memory length: 371755
                                                      epsilon: 0.4619231200106136
steps: 336
              lr: 0.0001
                              evaluation reward: 3.8
                              memory length: 372022
episode: 1774
                score: 4.0
                                                      epsilon:
0.46139446001061024
                        steps: 267
                                      lr: 0.0001
                                                      evaluation reward: 3.78
                                                      epsilon: 0.4609964800106077
episode: 1775
                score: 2.0
                              memory length: 372223
steps: 201
              lr: 0.0001
                              evaluation reward: 3.78
episode: 1776
                score: 2.0
                              memory length: 372404
                                                      epsilon:
0.46063810001060546
                       steps: 181
                                      lr: 0.0001
                                                      evaluation reward: 3.78
                score: 3.0
                             memory length: 372650
                                                      epsilon: 0.4601510200106024
episode: 1777
```

```
lr: 0.0001
                              evaluation reward: 3.78
steps: 246
episode: 1778
                score: 6.0
                              memory length: 372971
                                                       epsilon:
                       steps: 321
0.45951544001059835
                                      lr: 0.0001
                                                      evaluation reward: 3.79
                              memory length: 373217
episode: 1779
                score: 3.0
                                                       epsilon:
0.45902836001059527
                       steps: 246
                                      lr: 0.0001
                                                      evaluation reward: 3.76
                              memory length: 373544
                                                       epsilon: 0.4583809000105912
episode: 1780
                score: 5.0
                              evaluation reward: 3.79
steps: 327
              lr: 0.0001
episode: 1781
                score: 2.0
                              memory length: 373741
                                                       epsilon: 0.4579908400105887
                              evaluation reward: 3.79
steps: 197
              lr: 0.0001
                              memory length: 374020
episode: 1782
                score: 4.0
                                                       epsilon: 0.4574384200105852
steps: 279
              lr: 0.0001
                              evaluation reward: 3.8
episode: 1783
                score: 3.0
                              memory length: 374248
                                                       epsilon:
                                                      evaluation reward: 3.81
0.45698698001058236
                       steps: 228
                                      lr: 0.0001
                                                       epsilon: 0.4565949400105799
episode: 1784
                score: 2.0
                              memory length: 374446
steps: 198
              lr: 0.0001
                              evaluation reward: 3.8
                             memory length: 374722
                                                       epsilon: 0.4560484600105764
episode: 1785
                score: 4.0
steps: 276
              lr: 0.0001
                              evaluation reward: 3.78
episode: 1786
                              memory length: 374987
                                                       epsilon: 0.4555237600105731
                score: 4.0
steps: 265
              lr: 0.0001
                              evaluation reward: 3.8
episode: 1787
                score: 5.0
                              memory length: 375295
                                                       epsilon:
0.45491392001056924
                       steps: 308
                                                      evaluation reward: 3.81
                                      lr: 0.0001
episode: 1788
                score: 2.0
                              memory length: 375476
                                                       epsilon:
                       steps: 181
0.45455554001056697
                                      lr: 0.0001
                                                      evaluation reward: 3.81
                                                       epsilon: 0.4541654800105645
episode: 1789
                score: 2.0
                             memory length: 375673
steps: 197
              lr: 0.0001
                              evaluation reward: 3.8
episode: 1790
                score: 6.0
                              memory length: 376007
                                                       epsilon: 0.4535041600105603
steps: 334
              lr: 0.0001
                              evaluation reward: 3.81
episode: 1791
                score: 7.0
                              memory length: 376330
                                                       epsilon: 0.4528646200105563
steps: 323
              lr: 0.0001
                              evaluation reward: 3.86
episode: 1792
                score: 6.0
                              memory length: 376687
                                                       epsilon: 0.4521577600105518
steps: 357
              lr: 0.0001
                              evaluation reward: 3.9
episode: 1793
                score: 4.0
                              memory length: 376980
                                                       epsilon:
0.45157762001054813
                       steps: 293
                                      lr: 0.0001
                                                      evaluation reward: 3.92
                score: 7.0
                              memory length: 377392
episode: 1794
                                                       epsilon:
0.45076186001054297
                       steps: 412
                                      lr: 0.0001
                                                      evaluation reward: 3.95
                score: 5.0
episode: 1795
                              memory length: 377700
                                                       epsilon: 0.4501520200105391
steps: 308
              lr: 0.0001
                              evaluation reward: 3.96
episode: 1796
                              memory length: 377975
                score: 4.0
                                                       epsilon:
0.44960752001053567
                                                      evaluation reward: 3.98
                       steps: 275
                                      lr: 0.0001
episode: 1797
                score: 2.0
                              memory length: 378157
                                                       epsilon: 0.4492471600105334
                              evaluation reward: 3.96
steps: 182
              lr: 0.0001
                              memory length: 378370
                                                       epsilon: 0.4488254200105307
episode: 1798
                score: 3.0
steps: 213
              lr: 0.0001
                              evaluation reward: 3.96
episode: 1799
                score: 6.0
                              memory length: 378726
                                                       epsilon:
0.44812054001052626
                       steps: 356
                                      lr: 0.0001
                                                      evaluation reward: 3.99
episode: 1800
                score: 4.0
                              memory length: 379022
                                                       epsilon:
0.44753446001052255
                       steps: 296
                                      lr: 0.0001
                                                      evaluation reward: 3.98
                score: 3.0
                             memory length: 379292
episode: 1801
                                                       epsilon:
```

```
evaluation reward: 3.97
0.44699986001051917
                       steps: 270
                                      lr: 0.0001
episode: 1802
                score: 5.0
                             memory length: 379598
                                                       epsilon:
                       steps: 306
0.44639398001051533
                                      lr: 0.0001
                                                      evaluation reward: 4.0
                score: 2.0
                              memory length: 379795
episode: 1803
                                                       epsilon:
0.44600392001051287
                       steps: 197
                                      lr: 0.0001
                                                      evaluation reward: 3.97
                score: 4.0
                              memory length: 380061
episode: 1804
                                                       epsilon:
0.44547724001050953
                       steps: 266
                                      lr: 0.0001
                                                      evaluation reward: 3.99
episode: 1805
                score: 3.0
                              memory length: 380289
                                                       epsilon: 0.4450258000105067
                              evaluation reward: 3.99
steps: 228
              lr: 0.0001
episode: 1806
                score: 2.0
                             memory length: 380489
                                                       epsilon: 0.4446298000105042
steps: 200
              lr: 0.0001
                              evaluation reward: 3.94
episode: 1807
                score: 4.0
                              memory length: 380749
                                                       epsilon: 0.4441150000105009
steps: 260
              lr: 0.0001
                              evaluation reward: 3.96
                              memory length: 381097
episode: 1808
                score: 6.0
                                                       epsilon:
0.44342596001049656
                       steps: 348
                                      lr: 0.0001
                                                      evaluation reward: 3.98
                               memory length: 381478
episode: 1809
                score: 11.0
                                                        epsilon:
0.4426715800104918
                      steps: 381
                                     lr: 0.0001
                                                    evaluation reward: 4.07
                score: 2.0
episode: 1810
                              memory length: 381658
                                                       epsilon:
0.44231518001048953
                       steps: 180
                                      lr: 0.0001
                                                      evaluation reward: 4.04
episode: 1811
                score: 6.0
                             memory length: 381984
                                                       epsilon:
0.44166970001048544
                       steps: 326
                                      lr: 0.0001
                                                      evaluation reward: 4.09
episode: 1812
                score: 5.0
                              memory length: 382279
                                                       epsilon:
                       steps: 295
0.44108560001048175
                                      lr: 0.0001
                                                      evaluation reward: 4.11
                score: 3.0
                             memory length: 382508
                                                       epsilon: 0.4406321800104789
episode: 1813
steps: 229
              lr: 0.0001
                              evaluation reward: 4.09
episode: 1814
                score: 2.0
                              memory length: 382708
                                                       epsilon: 0.4402361800104764
steps: 200
              lr: 0.0001
                              evaluation reward: 4.1
episode: 1815
                score: 3.0
                              memory length: 382938
                                                       epsilon: 0.4397807800104735
steps: 230
              lr: 0.0001
                              evaluation reward: 4.1
episode: 1816
                score: 7.0
                              memory length: 383330
                                                       epsilon: 0.4390046200104686
steps: 392
              lr: 0.0001
                              evaluation reward: 4.14
episode: 1817
                score: 6.0
                              memory length: 383707
                                                       epsilon:
0.43825816001046386
                       steps: 377
                                      lr: 0.0001
                                                      evaluation reward: 4.17
                score: 4.0
                              memory length: 383970
episode: 1818
                                                       epsilon:
                                      lr: 0.0001
0.43773742001046057
                       steps: 263
                                                      evaluation reward: 4.17
                score: 5.0
episode: 1819
                              memory length: 384294
                                                       epsilon: 0.4370959000104565
                              evaluation reward: 4.18
steps: 324
              lr: 0.0001
episode: 1820
                score: 4.0
                              memory length: 384570
                                                       epsilon:
0.43654942001045305
                       steps: 276
                                      lr: 0.0001
                                                      evaluation reward: 4.19
                                                       epsilon: 0.4360049200104496
episode: 1821
                score: 4.0
                              memory length: 384845
              lr: 0.0001
                              evaluation reward: 4.21
steps: 275
                              memory length: 385042
episode: 1822
                score: 2.0
                                                       epsilon:
0.43561486001044714
                        steps: 197
                                      lr: 0.0001
                                                      evaluation reward: 4.2
                                                       epsilon: 0.4349911600104432
episode: 1823
                score: 5.0
                              memory length: 385357
steps: 315
              lr: 0.0001
                              evaluation reward: 4.18
episode: 1824
                score: 3.0
                              memory length: 385582
                                                       epsilon:
0.43454566001044037
                       steps: 225
                                      lr: 0.0001
                                                      evaluation reward: 4.2
episode: 1825
                score: 3.0
                             memory length: 385809
                                                       epsilon: 0.4340962000104375
```

```
lr: 0.0001
                              evaluation reward: 4.19
steps: 227
episode: 1826
                score: 3.0
                              memory length: 386077
                                                       epsilon:
                       steps: 268
0.43356556001043417
                                      lr: 0.0001
                                                      evaluation reward: 4.2
                                                       epsilon: 0.4330190800104307
episode: 1827
                score: 4.0
                              memory length: 386353
steps: 276
              lr: 0.0001
                              evaluation reward: 4.2
                              memory length: 386744
episode: 1828
                score: 7.0
                                                       epsilon: 0.4322449000104258
steps: 391
              lr: 0.0001
                              evaluation reward: 4.22
episode: 1829
                score: 2.0
                              memory length: 386925
                                                       epsilon:
0.43188652001042355
                                      lr: 0.0001
                                                      evaluation reward: 4.2
                       steps: 181
                score: 2.0
episode: 1830
                             memory length: 387104
                                                       epsilon: 0.4315321000104213
steps: 179
              lr: 0.0001
                              evaluation reward: 4.19
episode: 1831
                score: 3.0
                              memory length: 387349
                                                       epsilon:
0.43104700001041824
                       steps: 245
                                      lr: 0.0001
                                                      evaluation reward: 4.12
episode: 1832
                score: 1.0
                              memory length: 387500
                                                       epsilon:
0.43074802001041634
                       steps: 151
                                      lr: 0.0001
                                                      evaluation reward: 4.09
                score: 6.0
                                                       epsilon: 0.4300768000104121
episode: 1833
                              memory length: 387839
steps: 339
              lr: 0.0001
                              evaluation reward: 4.1
episode: 1834
                              memory length: 388312
                                                       epsilon:
                score: 8.0
0.42914026001040617
                       steps: 473
                                      lr: 0.0001
                                                      evaluation reward: 4.16
episode: 1835
                score: 3.0
                              memory length: 388524
                                                       epsilon: 0.4287205000104035
steps: 212
              lr: 0.0001
                              evaluation reward: 4.15
                              memory length: 388813
episode: 1836
                score: 5.0
                                                       epsilon: 0.4281482800103999
steps: 289
              lr: 0.0001
                              evaluation reward: 4.17
                              memory length: 389156
                                                       epsilon: 0.4274691400103956
episode: 1837
                score: 6.0
steps: 343
              lr: 0.0001
                              evaluation reward: 4.16
episode: 1838
                score: 5.0
                              memory length: 389460
                                                       epsilon: 0.4268672200103918
steps: 304
                              evaluation reward: 4.16
              lr: 0.0001
episode: 1839
                score: 3.0
                              memory length: 389672
                                                       epsilon:
                                      lr: 0.0001
                                                      evaluation reward: 4.13
0.42644746001038913
                        steps: 212
episode: 1840
                score: 5.0
                              memory length: 389995
                                                       epsilon: 0.4258079200103851
              lr: 0.0001
steps: 323
                              evaluation reward: 4.12
episode: 1841
                score: 5.0
                              memory length: 390299
                                                       epsilon: 0.4252060000103813
steps: 304
              lr: 0.0001
                              evaluation reward: 4.14
                              memory length: 390602
                                                       epsilon: 0.4246060600103775
episode: 1842
                score: 5.0
                              evaluation reward: 4.14
steps: 303
              lr: 0.0001
episode: 1843
                score: 4.0
                              memory length: 390860
                                                       epsilon:
0.42409522001037425
                       steps: 258
                                      lr: 0.0001
                                                      evaluation reward: 4.16
episode: 1844
                score: 6.0
                              memory length: 391197
                                                       epsilon:
                                                      evaluation reward: 4.17
0.42342796001037003
                       steps: 337
                                      lr: 0.0001
episode: 1845
                score: 4.0
                              memory length: 391459
                                                       epsilon:
0.42290920001036675
                                                     evaluation reward: 4.17
                       steps: 262
                                      lr: 0.0001
                              memory length: 391851
episode: 1846
                score: 7.0
                                                       epsilon:
0.42213304001036184
                        steps: 392
                                      lr: 0.0001
                                                      evaluation reward: 4.18
                                                       epsilon: 0.4211588800103557
episode: 1847
                score: 9.0
                             memory length: 392343
steps: 492
              lr: 0.0001
                              evaluation reward: 4.22
episode: 1848
                score: 4.0
                              memory length: 392602
                                                       epsilon:
0.42064606001035243
                       steps: 259
                                      lr: 0.0001
                                                      evaluation reward: 4.23
                score: 6.0
                             memory length: 392966
episode: 1849
                                                       epsilon:
```

```
steps: 364
0.41992534001034787
                                      lr: 0.0001
                                                     evaluation reward: 4.24
episode: 1850
                score: 4.0
                             memory length: 393264
                                                      epsilon:
                       steps: 298
0.41933530001034414
                                      lr: 0.0001
                                                     evaluation reward: 4.28
                score: 4.0
                             memory length: 393529
                                                      epsilon: 0.4188106000103408
episode: 1851
steps: 265
              lr: 0.0001
                              evaluation reward: 4.28
                             memory length: 393758
episode: 1852
                score: 3.0
                                                      epsilon:
0.41835718001033795
                       steps: 229
                                      lr: 0.0001
                                                     evaluation reward: 4.29
episode: 1853
                score: 5.0
                             memory length: 394081
                                                      epsilon: 0.4177176400103339
                              evaluation reward: 4.28
steps: 323
              lr: 0.0001
episode: 1854
                score: 5.0
                             memory length: 394420
                                                      epsilon:
0.41704642001032965
                       steps: 339
                                      lr: 0.0001
                                                     evaluation reward: 4.29
episode: 1855
                score: 3.0
                              memory length: 394667
                                                      epsilon:
0.41655736001032656
                       steps: 247
                                      lr: 0.0001
                                                     evaluation reward: 4.26
episode: 1856
                score: 3.0
                             memory length: 394914
                                                      epsilon:
0.41606830001032347
                       steps: 247
                                      lr: 0.0001
                                                      evaluation reward: 4.25
                             memory length: 395237
                score: 5.0
                                                      epsilon: 0.4154287600103194
episode: 1857
steps: 323
              lr: 0.0001
                              evaluation reward: 4.24
episode: 1858
                score: 5.0
                             memory length: 395542
                                                      epsilon: 0.4148248600103156
steps: 305
              lr: 0.0001
                              evaluation reward: 4.25
episode: 1859
                score: 3.0
                             memory length: 395767
                                                      epsilon: 0.4143793600103128
steps: 225
              lr: 0.0001
                              evaluation reward: 4.23
                             memory length: 396109
episode: 1860
                score: 6.0
                                                      epsilon: 0.4137022000103085
steps: 342
              lr: 0.0001
                              evaluation reward: 4.26
                             memory length: 396483
                                                      epsilon: 0.4129616800103038
episode: 1861
                score: 6.0
steps: 374
              lr: 0.0001
                              evaluation reward: 4.29
episode: 1862
                score: 5.0
                             memory length: 396776
                                                      epsilon:
                       steps: 293
0.41238154001030014
                                                     evaluation reward: 4.32
                                      lr: 0.0001
episode: 1863
                score: 3.0
                             memory length: 397001
                                                      epsilon: 0.4119360400102973
                              evaluation reward: 4.31
steps: 225
              lr: 0.0001
episode: 1864
                score: 2.0
                             memory length: 397198
                                                      epsilon:
0.41154598001029485
                       steps: 197
                                      lr: 0.0001
                                                     evaluation reward: 4.29
episode: 1865
                score: 4.0
                             memory length: 397456
                                                      epsilon: 0.4110351400102916
steps: 258
              lr: 0.0001
                              evaluation reward: 4.29
                score: 2.0
                             memory length: 397653
episode: 1866
                                                      epsilon:
0.41064508001028915
                       steps: 197
                                      lr: 0.0001
                                                     evaluation reward: 4.23
episode: 1867
                score: 4.0
                             memory length: 397931
                                                      epsilon:
0.41009464001028567
                       steps: 278
                                      lr: 0.0001
                                                     evaluation reward: 4.2
episode: 1868
                score: 4.0
                             memory length: 398205
                                                      epsilon:
                                                     evaluation reward: 4.22
0.40955212001028224
                       steps: 274
                                      lr: 0.0001
episode: 1869
                score: 2.0
                             memory length: 398402
                                                      epsilon:
0.40916206001027977
                                      lr: 0.0001
                                                     evaluation reward: 4.2
                       steps: 197
                             memory length: 398682
                score: 4.0
episode: 1870
                                                      epsilon:
0.40860766001027626
                        steps: 280
                                      lr: 0.0001
                                                     evaluation reward: 4.2
                                                      epsilon: 0.4079978200102724
episode: 1871
                score: 5.0
                             memory length: 398990
steps: 308
              lr: 0.0001
                              evaluation reward: 4.22
episode: 1872
                score: 3.0
                             memory length: 399200
                                                      epsilon: 0.4075820200102698
steps: 210
              lr: 0.0001
                              evaluation reward: 4.2
episode: 1873
                             memory length: 399617
                score: 8.0
                                                      epsilon:
```

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steps: 417
0.40675636001026455
                                      lr: 0.0001
                                                     evaluation reward: 4.22
episode: 1874
                score: 6.0
                             memory length: 399981
                                                      epsilon: 0.40603564001026
steps: 364
              lr: 0.0001
                              evaluation reward: 4.24
episode: 1875
                score: 2.0
                             memory length: 400180
                                                      epsilon: 0.4056416200102575
                             evaluation reward: 4.24
steps: 199
              lr: 4e-05
                             memory length: 400392
episode: 1876
                score: 3.0
                                                      epsilon:
0.40522186001025484
                       steps: 212
                                      lr: 4e-05
                                                    evaluation reward: 4.25
episode: 1877
                score: 3.0
                             memory length: 400602
                                                      epsilon: 0.4048060600102522
                            evaluation reward: 4.25
steps: 210
              lr: 4e-05
episode: 1878
                score: 4.0
                             memory length: 400842
                                                      epsilon: 0.4043308600102492
steps: 240
              lr: 4e-05
                             evaluation reward: 4.23
episode: 1879
                score: 7.0
                             memory length: 401250
                                                      epsilon: 0.4035230200102441
steps: 408
              lr: 4e-05
                             evaluation reward: 4.27
                             memory length: 401524
episode: 1880
                score: 4.0
                                                      epsilon:
0.40298050001024066
                       steps: 274
                                      lr: 4e-05
                                                    evaluation reward: 4.26
                score: 6.0
                             memory length: 401887
                                                      epsilon: 0.4022617600102361
episode: 1881
steps: 363
              lr: 4e-05
                             evaluation reward: 4.3
episode: 1882
                score: 4.0
                                                      epsilon: 0.4017192400102327
                             memory length: 402161
steps: 274
              lr: 4e-05
                            evaluation reward: 4.3
episode: 1883
                score: 12.0
                               memory length: 402463
                                                       epsilon:
0.4011212800102289
                      steps: 302
                                     lr: 4e-05
                                                   evaluation reward: 4.39
episode: 1884
                score: 2.0
                              memory length: 402644
                                                      epsilon:
                       steps: 181
0.40076290001022663
                                      lr: 4e-05
                                                    evaluation reward: 4.39
                score: 3.0
                             memory length: 402875
episode: 1885
                                                      epsilon:
0.40030552001022374
                       steps: 231
                                      lr: 4e-05
                                                    evaluation reward: 4.38
episode: 1886
                score: 4.0
                             memory length: 403134
                                                      epsilon: 0.3997927000102205
steps: 259
              lr: 4e-05
                             evaluation reward: 4.38
episode: 1887
                score: 4.0
                             memory length: 403390
                                                      epsilon: 0.3992858200102173
steps: 256
              lr: 4e-05
                             evaluation reward: 4.37
episode: 1888
                score: 2.0
                             memory length: 403588
                                                      epsilon: 0.3988937800102148
              1r: 4e-05
                             evaluation reward: 4.37
steps: 198
episode: 1889
                score: 6.0
                             memory length: 403933
                                                      epsilon: 0.3982106800102105
steps: 345
              lr: 4e-05
                             evaluation reward: 4.41
episode: 1890
                score: 3.0
                             memory length: 404146
                                                      epsilon: 0.3977889400102078
                             evaluation reward: 4.38
steps: 213
              lr: 4e-05
episode: 1891
                score: 5.0
                             memory length: 404475
                                                      epsilon: 0.3971375200102037
steps: 329
              lr: 4e-05
                             evaluation reward: 4.36
episode: 1892
                score: 4.0
                             memory length: 404769
                                                      epsilon: 0.3965554000102
                            evaluation reward: 4.34
steps: 294
              lr: 4e-05
episode: 1893
                score: 7.0
                             memory length: 405155
                                                      epsilon: 0.3957911200101952
steps: 386
                            evaluation reward: 4.37
              lr: 4e-05
episode: 1894
                             memory length: 405384
                                                      epsilon: 0.3953377000101923
                score: 3.0
steps: 229
              lr: 4e-05
                             evaluation reward: 4.33
episode: 1895
                score: 4.0
                             memory length: 405677
                                                      epsilon:
0.39475756001018864
                       steps: 293
                                      lr: 4e-05
                                                    evaluation reward: 4.32
episode: 1896
                score: 2.0
                             memory length: 405856
                                                      epsilon: 0.3944031400101864
steps: 179
              lr: 4e-05
                             evaluation reward: 4.3
episode: 1897
                             memory length: 406037
                                                      epsilon: 0.3940447600101841
                score: 2.0
```

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evaluation reward: 4.3
steps: 181
              lr: 4e-05
episode: 1898
                score: 4.0
                             memory length: 406291
                                                      epsilon:
0.39354184001018094
                       steps: 254
                                      lr: 4e-05
                                                    evaluation reward: 4.31
                score: 3.0
                                                      epsilon: 0.3931201000101783
episode: 1899
                             memory length: 406504
steps: 213
              lr: 4e-05
                             evaluation reward: 4.28
episode: 1900
                             memory length: 406923
                score: 8.0
                                                      epsilon: 0.392290480010173
steps: 419
              lr: 4e-05
                            evaluation reward: 4.32
episode: 1901
                score: 6.0
                             memory length: 407334
                                                      epsilon: 0.3914767000101679
                            evaluation reward: 4.35
steps: 411
              lr: 4e-05
episode: 1902
                score: 5.0
                             memory length: 407639
                                                      epsilon:
0.39087280001016406
                       steps: 305
                                      lr: 4e-05
                                                    evaluation reward: 4.35
episode: 1903
                score: 5.0
                             memory length: 407946
                                                      epsilon: 0.3902649400101602
                             evaluation reward: 4.38
steps: 307
              lr: 4e-05
episode: 1904
                score: 3.0
                             memory length: 408175
                                                      epsilon:
0.38981152001015734
                       steps: 229
                                      lr: 4e-05
                                                    evaluation reward: 4.37
episode: 1905
                score: 4.0
                             memory length: 408431
                                                      epsilon:
0.38930464001015413
                       steps: 256
                                      lr: 4e-05
                                                    evaluation reward: 4.38
                score: 7.0
                                                      epsilon: 0.3885423400101493
episode: 1906
                             memory length: 408816
              lr: 4e-05
                             evaluation reward: 4.43
steps: 385
episode: 1907
                score: 5.0
                             memory length: 409162
                                                      epsilon: 0.387857260010145
steps: 346
              lr: 4e-05
                            evaluation reward: 4.44
                             memory length: 409504
episode: 1908
                score: 5.0
                                                      epsilon: 0.3871801000101407
steps: 342
              lr: 4e-05
                            evaluation reward: 4.43
                             memory length: 409703
                                                      epsilon: 0.3867860800101382
episode: 1909
                score: 2.0
steps: 199
              lr: 4e-05
                            evaluation reward: 4.34
episode: 1910
                score: 2.0
                             memory length: 409884
                                                      epsilon:
0.38642770001013593
                                      lr: 4e-05
                       steps: 181
                                                    evaluation reward: 4.34
episode: 1911
                score: 2.0
                             memory length: 410081
                                                      epsilon:
0.38603764001013346
                       steps: 197
                                      lr: 4e-05
                                                    evaluation reward: 4.3
episode: 1912
                score: 5.0
                             memory length: 410407
                                                      epsilon: 0.3853921600101294
              lr: 4e-05
steps: 326
                             evaluation reward: 4.3
episode: 1913
                score: 5.0
                             memory length: 410730
                                                      epsilon:
                       steps: 323
0.38475262001012533
                                      lr: 4e-05
                                                    evaluation reward: 4.32
                score: 5.0
episode: 1914
                             memory length: 411056
                                                      epsilon:
                       steps: 326
0.38410714001012125
                                      lr: 4e-05
                                                    evaluation reward: 4.35
                score: 3.0
episode: 1915
                             memory length: 411285
                                                      epsilon: 0.3836537200101184
steps: 229
              lr: 4e-05
                            evaluation reward: 4.35
                             memory length: 411565
episode: 1916
                score: 4.0
                                                      epsilon: 0.3830993200101149
steps: 280
              lr: 4e-05
                            evaluation reward: 4.32
episode: 1917
                score: 4.0
                             memory length: 411823
                                                      epsilon:
0.38258848001011164
                       steps: 258
                                                    evaluation reward: 4.3
                                      lr: 4e-05
                             memory length: 412064
                score: 4.0
                                                      epsilon: 0.3821113000101086
episode: 1918
              lr: 4e-05
                             evaluation reward: 4.3
steps: 241
episode: 1919
                score: 2.0
                             memory length: 412245
                                                      epsilon:
0.38175292001010636
                       steps: 181
                                      lr: 4e-05
                                                    evaluation reward: 4.27
episode: 1920
                score: 3.0
                             memory length: 412470
                                                      epsilon:
0.38130742001010354
                       steps: 225
                                      lr: 4e-05
                                                    evaluation reward: 4.26
                             memory length: 412877
episode: 1921
                score: 7.0
                                                      epsilon:
```

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steps: 407
0.38050156001009844
                                      lr: 4e-05
                                                    evaluation reward: 4.29
                                                      epsilon: 0.3798620200100944
episode: 1922
                score: 6.0
                             memory length: 413200
steps: 323
              lr: 4e-05
                             evaluation reward: 4.33
episode: 1923
                score: 2.0
                             memory length: 413381
                                                      epsilon: 0.3795036400100921
steps: 181
              lr: 4e-05
                             evaluation reward: 4.3
                             memory length: 413641
episode: 1924
                score: 4.0
                                                      epsilon:
0.37898884001008887
                       steps: 260
                                      lr: 4e-05
                                                    evaluation reward: 4.31
episode: 1925
                score: 3.0
                             memory length: 413886
                                                      epsilon: 0.3785037400100858
                            evaluation reward: 4.31
steps: 245
              lr: 4e-05
                                                      epsilon: 0.3778602400100817
episode: 1926
                score: 5.0
                             memory length: 414211
steps: 325
              lr: 4e-05
                            evaluation reward: 4.33
episode: 1927
                score: 4.0
                             memory length: 414505
                                                      epsilon:
0.37727812001007804
                       steps: 294
                                      lr: 4e-05
                                                    evaluation reward: 4.33
                             memory length: 414762
                                                      epsilon: 0.3767692600100748
episode: 1928
                score: 4.0
steps: 257
              lr: 4e-05
                             evaluation reward: 4.3
                             memory length: 415009
episode: 1929
                score: 7.0
                                                      epsilon:
0.37628020001007173
                       steps: 247
                                      lr: 4e-05
                                                    evaluation reward: 4.35
                             memory length: 415271
                score: 4.0
episode: 1930
                                                      epsilon:
                       steps: 262
                                      lr: 4e-05
                                                    evaluation reward: 4.37
0.37576144001006845
episode: 1931
                score: 3.0
                             memory length: 415520
                                                      epsilon:
0.37526842001006533
                       steps: 249
                                      lr: 4e-05
                                                    evaluation reward: 4.37
                                                      epsilon: 0.3747773800100622
episode: 1932
                score: 3.0
                             memory length: 415768
steps: 248
              lr: 4e-05
                            evaluation reward: 4.39
episode: 1933
                             memory length: 416011
                                                      epsilon: 0.3742962400100592
                score: 4.0
steps: 243
              lr: 4e-05
                            evaluation reward: 4.37
episode: 1934
                score: 4.0
                             memory length: 416267
                                                      epsilon:
0.37378936001005597
                                      lr: 4e-05
                       steps: 256
                                                    evaluation reward: 4.33
episode: 1935
                score: 3.0
                             memory length: 416476
                                                      epsilon:
0.37337554001005335
                       steps: 209
                                      lr: 4e-05
                                                    evaluation reward: 4.33
episode: 1936
                score: 7.0
                             memory length: 416849
                                                      epsilon: 0.3726370000100487
steps: 373
              lr: 4e-05
                             evaluation reward: 4.35
episode: 1937
                score: 3.0
                             memory length: 417079
                                                      epsilon: 0.3721816000100458
steps: 230
              lr: 4e-05
                             evaluation reward: 4.32
episode: 1938
                             memory length: 417261
                                                      epsilon: 0.3718212400100435
                score: 2.0
                             evaluation reward: 4.29
steps: 182
              lr: 4e-05
                                                      epsilon: 0.3713737600100407
episode: 1939
                score: 3.0
                             memory length: 417487
steps: 226
              lr: 4e-05
                            evaluation reward: 4.29
episode: 1940
                score: 2.0
                             memory length: 417668
                                                      epsilon: 0.3710153800100384
steps: 181
                            evaluation reward: 4.26
              lr: 4e-05
episode: 1941
                score: 4.0
                             memory length: 417906
                                                      epsilon:
0.37054414001003544
                       steps: 238
                                      lr: 4e-05
                                                    evaluation reward: 4.25
                score: 7.0
                             memory length: 418265
episode: 1942
                                                      epsilon:
0.36983332001003094
                       steps: 359
                                      lr: 4e-05
                                                    evaluation reward: 4.27
                                                      epsilon: 0.3693224800100277
episode: 1943
                score: 4.0
                             memory length: 418523
steps: 258
              lr: 4e-05
                             evaluation reward: 4.27
episode: 1944
                score: 2.0
                             memory length: 418720
                                                      epsilon:
0.36893242001002524
                       steps: 197
                                      lr: 4e-05
                                                    evaluation reward: 4.23
episode: 1945
                score: 3.0
                             memory length: 418965
                                                      epsilon: 0.3684473200100222
```

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evaluation reward: 4.22
steps: 245
              lr: 4e-05
episode: 1946
                score: 2.0
                             memory length: 419164
                                                      epsilon: 0.3680533000100197
steps: 199
              lr: 4e-05
                             evaluation reward: 4.17
episode: 1947
                score: 2.0
                             memory length: 419345
                                                      epsilon: 0.3676949200100174
steps: 181
              lr: 4e-05
                             evaluation reward: 4.1
episode: 1948
                             memory length: 419640
                score: 4.0
                                                      epsilon: 0.3671108200100137
steps: 295
              lr: 4e-05
                             evaluation reward: 4.1
episode: 1949
                score: 4.0
                             memory length: 419912
                                                      epsilon: 0.3665722600100103
                             evaluation reward: 4.08
steps: 272
              lr: 4e-05
episode: 1950
                score: 2.0
                             memory length: 420093
                                                      epsilon:
0.36621388001000804
                                      lr: 4e-05
                                                    evaluation reward: 4.06
                       steps: 181
                                                      epsilon: 0.3658555000100058
episode: 1951
                score: 2.0
                             memory length: 420274
steps: 181
              lr: 4e-05
                             evaluation reward: 4.04
episode: 1952
                score: 7.0
                             memory length: 420646
                                                      epsilon: 0.3651189400100011
steps: 372
              lr: 4e-05
                             evaluation reward: 4.08
                             memory length: 420893
                                                      epsilon: 0.364629880009998
episode: 1953
                score: 3.0
steps: 247
              lr: 4e-05
                             evaluation reward: 4.06
episode: 1954
                score: 3.0
                             memory length: 421120
                                                      epsilon: 0.3641804200099952
              lr: 4e-05
                             evaluation reward: 4.04
steps: 227
episode: 1955
                             memory length: 421368
                score: 3.0
                                                      epsilon:
0.36368938000999207
                       steps: 248
                                      lr: 4e-05
                                                    evaluation reward: 4.04
                                                      epsilon: 0.3633290200099898
episode: 1956
                score: 2.0
                             memory length: 421550
              lr: 4e-05
steps: 182
                             evaluation reward: 4.03
                             memory length: 421731
                                                      epsilon: 0.3629706400099875
episode: 1957
                score: 2.0
steps: 181
              lr: 4e-05
                            evaluation reward: 4.0
episode: 1958
                score: 2.0
                             memory length: 421913
                                                      epsilon:
0.36261028000998524
                                      lr: 4e-05
                       steps: 182
                                                    evaluation reward: 3.97
episode: 1959
                score: 3.0
                             memory length: 422143
                                                      epsilon:
                       steps: 230
0.36215488000998236
                                      lr: 4e-05
                                                    evaluation reward: 3.97
episode: 1960
                score: 6.0
                             memory length: 422485
                                                      epsilon: 0.3614777200099781
              lr: 4e-05
                             evaluation reward: 3.97
steps: 342
episode: 1961
                score: 6.0
                             memory length: 422848
                                                      epsilon:
                       steps: 363
0.36075898000997353
                                      lr: 4e-05
                                                    evaluation reward: 3.97
                score: 3.0
                                                      epsilon: 0.3603134800099707
episode: 1962
                             memory length: 423073
                             evaluation reward: 3.95
steps: 225
              lr: 4e-05
episode: 1963
                score: 3.0
                             memory length: 423283
                                                      epsilon: 0.3598976800099681
steps: 210
              lr: 4e-05
                            evaluation reward: 3.95
episode: 1964
                score: 5.0
                             memory length: 423609
                                                      epsilon: 0.359252200009964
                            evaluation reward: 3.98
steps: 326
              lr: 4e-05
episode: 1965
                score: 3.0
                             memory length: 423819
                                                      epsilon:
0.35883640000996136
                       steps: 210
                                                    evaluation reward: 3.97
                                      lr: 4e-05
                             memory length: 424000
                                                      epsilon: 0.3584780200099591
episode: 1966
                score: 2.0
steps: 181
              lr: 4e-05
                             evaluation reward: 3.97
                                                      epsilon: 0.3577711600099546
episode: 1967
                score: 6.0
                             memory length: 424357
steps: 357
              lr: 4e-05
                             evaluation reward: 3.99
episode: 1968
                score: 4.0
                             memory length: 424622
                                                      epsilon: 0.3572464600099513
steps: 265
              lr: 4e-05
                             evaluation reward: 3.99
episode: 1969
                             memory length: 424901
                                                      epsilon: 0.3566940400099478
                score: 4.0
```

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lr: 4e-05
                            evaluation reward: 4.01
steps: 279
episode: 1970
                score: 5.0
                             memory length: 425245
                                                      epsilon: 0.3560129200099435
steps: 344
              lr: 4e-05
                            evaluation reward: 4.02
episode: 1971
                score: 5.0
                             memory length: 425553
                                                      epsilon:
0.35540308000993964
                       steps: 308
                                      lr: 4e-05
                                                    evaluation reward: 4.02
                score: 4.0
                                                      epsilon: 0.3548902600099364
episode: 1972
                             memory length: 425812
steps: 259
              lr: 4e-05
                             evaluation reward: 4.03
episode: 1973
                score: 4.0
                             memory length: 426089
                                                      epsilon:
0.35434180000993293
                       steps: 277
                                      lr: 4e-05
                                                    evaluation reward: 3.99
                score: 6.0
episode: 1974
                             memory length: 426407
                                                      epsilon:
0.35371216000992894
                       steps: 318
                                      lr: 4e-05
                                                    evaluation reward: 3.99
                                                      epsilon: 0.3531835000099256
episode: 1975
                score: 5.0
                             memory length: 426674
                             evaluation reward: 4.02
steps: 267
              lr: 4e-05
                             memory length: 426954
                                                      epsilon: 0.3526291000099221
episode: 1976
                score: 5.0
steps: 280
              lr: 4e-05
                            evaluation reward: 4.04
                             memory length: 427307
episode: 1977
                score: 6.0
                                                      epsilon:
0.35193016000991767
                       steps: 353
                                      lr: 4e-05
                                                    evaluation reward: 4.07
                score: 2.0
                             memory length: 427508
episode: 1978
                                                      epsilon:
                       steps: 201
                                      lr: 4e-05
                                                    evaluation reward: 4.05
0.35153218000991515
episode: 1979
                score: 4.0
                             memory length: 427786
                                                      epsilon:
0.35098174000991167
                       steps: 278
                                      lr: 4e-05
                                                    evaluation reward: 4.02
episode: 1980
                score: 8.0
                             memory length: 428297
                                                      epsilon:
0.34996996000990527
                       steps: 511
                                      lr: 4e-05
                                                    evaluation reward: 4.06
                score: 4.0
                                                      epsilon: 0.3494195200099018
episode: 1981
                             memory length: 428575
steps: 278
              lr: 4e-05
                            evaluation reward: 4.04
episode: 1982
                score: 3.0
                             memory length: 428810
                                                      epsilon:
                       steps: 235
0.34895422000989884
                                      lr: 4e-05
                                                    evaluation reward: 4.03
episode: 1983
                score: 6.0
                             memory length: 429172
                                                       epsilon: 0.3482374600098943
steps: 362
              lr: 4e-05
                            evaluation reward: 3.97
episode: 1984
                score: 2.0
                             memory length: 429369
                                                      epsilon:
                                      lr: 4e-05
0.34784740000989184
                       steps: 197
                                                    evaluation reward: 3.97
episode: 1985
                score: 3.0
                             memory length: 429581
                                                      epsilon: 0.3474276400098892
steps: 212
              lr: 4e-05
                             evaluation reward: 3.97
                             memory length: 429842
                                                      epsilon: 0.3469108600098859
episode: 1986
                score: 4.0
                             evaluation reward: 3.97
steps: 261
              lr: 4e-05
episode: 1987
                score: 2.0
                             memory length: 430021
                                                      epsilon:
0.34655644000988367
                       steps: 179
                                      lr: 4e-05
                                                    evaluation reward: 3.95
                score: 4.0
                             memory length: 430295
                                                      epsilon:
episode: 1988
                                                    evaluation reward: 3.97
0.34601392000988024
                       steps: 274
                                      lr: 4e-05
episode: 1989
                score: 6.0
                             memory length: 430658
                                                      epsilon: 0.3452951800098757
steps: 363
              lr: 4e-05
                            evaluation reward: 3.97
                             memory length: 431000
                                                      epsilon: 0.3446180200098714
episode: 1990
                score: 6.0
steps: 342
                            evaluation reward: 4.0
              lr: 4e-05
episode: 1991
                score: 2.0
                             memory length: 431181
                                                      epsilon:
0.34425964000986914
                       steps: 181
                                      lr: 4e-05
                                                    evaluation reward: 3.97
episode: 1992
                score: 4.0
                             memory length: 431442
                                                      epsilon:
0.34374286000986587
                       steps: 261
                                      lr: 4e-05
                                                    evaluation reward: 3.97
                score: 3.0
                             memory length: 431691
episode: 1993
                                                      epsilon:
```

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0.34324984000986275
                                      lr: 4e-05
                                                    evaluation reward: 3.93
                       steps: 249
episode: 1994
                score: 4.0
                             memory length: 431948
                                                      epsilon:
                       steps: 257
0.34274098000985953
                                      lr: 4e-05
                                                    evaluation reward: 3.94
                score: 4.0
                                                      epsilon: 0.3422261800098563
episode: 1995
                             memory length: 432208
steps: 260
              lr: 4e-05
                             evaluation reward: 3.94
episode: 1996
                score: 3.0
                             memory length: 432434
                                                      epsilon:
0.34177870000985344
                       steps: 226
                                      lr: 4e-05
                                                    evaluation reward: 3.95
episode: 1997
                score: 2.0
                             memory length: 432616
                                                      epsilon:
                                      lr: 4e-05
                                                    evaluation reward: 3.95
0.34141834000985116
                       steps: 182
episode: 1998
                score: 6.0
                             memory length: 432979
                                                      epsilon: 0.3406996000098466
steps: 363
              lr: 4e-05
                             evaluation reward: 3.97
                                                      epsilon: 0.3400363000098424
episode: 1999
                score: 6.0
                             memory length: 433314
steps: 335
                             evaluation reward: 4.0
              lr: 4e-05
                                                      epsilon: 0.3395908000098396
episode: 2000
                score: 3.0
                             memory length: 433539
steps: 225
              lr: 4e-05
                             evaluation reward: 3.95
                             memory length: 433768
episode: 2001
                score: 3.0
                                                      epsilon:
0.33913738000983673
                       steps: 229
                                      lr: 4e-05
                                                    evaluation reward: 3.92
                score: 6.0
                             memory length: 434104
                                                      epsilon: 0.3384721000098325
episode: 2002
              lr: 4e-05
                             evaluation reward: 3.93
steps: 336
episode: 2003
                             memory length: 434286
                score: 2.0
                                                      epsilon:
                                                    evaluation reward: 3.9
0.33811174000983024
                       steps: 182
                                      lr: 4e-05
                                                      epsilon: 0.3373930000098257
episode: 2004
                score: 6.0
                             memory length: 434649
steps: 363
              lr: 4e-05
                            evaluation reward: 3.93
                             memory length: 434830
                                                      epsilon: 0.3370346200098234
episode: 2005
                score: 2.0
steps: 181
              lr: 4e-05
                            evaluation reward: 3.91
episode: 2006
                score: 2.0
                             memory length: 435012
                                                      epsilon:
0.33667426000982115
                                      lr: 4e-05
                       steps: 182
                                                    evaluation reward: 3.86
episode: 2007
                score: 6.0
                             memory length: 435375
                                                      epsilon: 0.3359555200098166
steps: 363
              lr: 4e-05
                             evaluation reward: 3.87
episode: 2008
                score: 3.0
                             memory length: 435603
                                                      epsilon:
0.33550408000981374
                       steps: 228
                                      1r: 4e-05
                                                    evaluation reward: 3.85
episode: 2009
                score: 4.0
                             memory length: 435848
                                                      epsilon: 0.3350189800098107
steps: 245
              lr: 4e-05
                             evaluation reward: 3.87
episode: 2010
                score: 4.0
                             memory length: 436123
                                                      epsilon:
0.33447448000980723
                       steps: 275
                                      lr: 4e-05
                                                    evaluation reward: 3.89
episode: 2011
                score: 2.0
                             memory length: 436304
                                                      epsilon:
0.33411610000980496
                       steps: 181
                                      lr: 4e-05
                                                    evaluation reward: 3.89
                score: 5.0
                             memory length: 436599
episode: 2012
                                                      epsilon:
                                                    evaluation reward: 3.89
0.33353200000980127
                       steps: 295
                                      lr: 4e-05
episode: 2013
                score: 5.0
                             memory length: 436914
                                                      epsilon: 0.3329083000097973
steps: 315
              lr: 4e-05
                            evaluation reward: 3.89
                             memory length: 437171
                                                      epsilon: 0.3323994400097941
episode: 2014
                score: 4.0
steps: 257
                            evaluation reward: 3.88
              lr: 4e-05
                                                      epsilon: 0.3319440400097912
episode: 2015
                score: 3.0
                             memory length: 437401
steps: 230
              lr: 4e-05
                            evaluation reward: 3.88
episode: 2016
                score: 3.0
                             memory length: 437629
                                                      epsilon:
0.33149260000978836
                       steps: 228
                                      lr: 4e-05
                                                    evaluation reward: 3.87
                score: 2.0
                             memory length: 437811
                                                      epsilon: 0.3311322400097861
episode: 2017
```

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evaluation reward: 3.85
steps: 182
              lr: 4e-05
episode: 2018
                score: 5.0
                             memory length: 438103
                                                      epsilon: 0.3305540800097824
steps: 292
              lr: 4e-05
                             evaluation reward: 3.86
episode: 2019
                score: 9.0
                             memory length: 438572
                                                      epsilon:
0.32962546000977655
                       steps: 469
                                      lr: 4e-05
                                                    evaluation reward: 3.93
                score: 4.0
                                                      epsilon: 0.3291443200097735
episode: 2020
                             memory length: 438815
steps: 243
              lr: 4e-05
                             evaluation reward: 3.94
episode: 2021
                score: 2.0
                             memory length: 438997
                                                      epsilon: 0.3287839600097712
steps: 182
              lr: 4e-05
                             evaluation reward: 3.89
episode: 2022
                score: 5.0
                             memory length: 439323
                                                      epsilon:
0.32813848000976714
                       steps: 326
                                                    evaluation reward: 3.88
                                      lr: 4e-05
episode: 2023
                score: 5.0
                             memory length: 439634
                                                      epsilon:
0.32752270000976325
                                      lr: 4e-05
                       steps: 311
                                                    evaluation reward: 3.91
episode: 2024
                score: 3.0
                             memory length: 439881
                                                      epsilon:
0.32703364000976015
                       steps: 247
                                      lr: 4e-05
                                                    evaluation reward: 3.9
episode: 2025
                score: 3.0
                                                      epsilon: 0.3266138800097575
                             memory length: 440093
steps: 212
              lr: 4e-05
                             evaluation reward: 3.9
episode: 2026
                             memory length: 440319
                                                      epsilon:
                score: 3.0
0.32616640000975466
                       steps: 226
                                      lr: 4e-05
                                                    evaluation reward: 3.88
episode: 2027
                score: 3.0
                             memory length: 440546
                                                      epsilon: 0.3257169400097518
steps: 227
              lr: 4e-05
                             evaluation reward: 3.87
                             memory length: 440725
episode: 2028
                score: 2.0
                                                      epsilon: 0.3253625200097496
steps: 179
              lr: 4e-05
                             evaluation reward: 3.85
                             memory length: 440904
                                                      epsilon:
episode: 2029
                score: 2.0
0.32500810000974734
                                      lr: 4e-05
                                                    evaluation reward: 3.8
                       steps: 179
                score: 5.0
                             memory length: 441209
                                                      epsilon: 0.3244042000097435
episode: 2030
                             evaluation reward: 3.81
steps: 305
              lr: 4e-05
episode: 2031
                score: 3.0
                             memory length: 441417
                                                      epsilon: 0.3239923600097409
steps: 208
              lr: 4e-05
                             evaluation reward: 3.81
episode: 2032
                             memory length: 441678
                score: 4.0
                                                      epsilon:
0.32347558000973764
                                      lr: 4e-05
                                                    evaluation reward: 3.82
                       steps: 261
episode: 2033
                score: 5.0
                             memory length: 441993
                                                      epsilon: 0.3228518800097337
steps: 315
              lr: 4e-05
                             evaluation reward: 3.83
episode: 2034
                score: 2.0
                             memory length: 442173
                                                      epsilon:
                                      lr: 4e-05
0.32249548000973144
                       steps: 180
                                                    evaluation reward: 3.81
                score: 4.0
episode: 2035
                             memory length: 442449
                                                       epsilon: 0.321949000009728
steps: 276
              lr: 4e-05
                             evaluation reward: 3.82
                             memory length: 442694
episode: 2036
                score: 3.0
                                                      epsilon: 0.3214639000097249
steps: 245
              lr: 4e-05
                             evaluation reward: 3.78
episode: 2037
                score: 3.0
                             memory length: 442919
                                                      epsilon: 0.3210184000097221
                             evaluation reward: 3.78
steps: 225
              lr: 4e-05
                             memory length: 443148
                                                      epsilon: 0.3205649800097192
episode: 2038
                score: 3.0
steps: 229
                             evaluation reward: 3.79
              lr: 4e-05
episode: 2039
                score: 7.0
                             memory length: 443553
                                                      epsilon:
0.31976308000971415
                       steps: 405
                                      lr: 4e-05
                                                    evaluation reward: 3.83
episode: 2040
                score: 4.0
                             memory length: 443807
                                                      epsilon:
0.31926016000971097
                       steps: 254
                                      lr: 4e-05
                                                    evaluation reward: 3.85
                             memory length: 443988
                                                      epsilon: 0.3189017800097087
episode: 2041
                score: 2.0
```

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steps: 181
              lr: 4e-05
                            evaluation reward: 3.83
episode: 2042
                score: 7.0
                             memory length: 444409
                                                      epsilon:
                       steps: 421
0.31806820000970343
                                      lr: 4e-05
                                                    evaluation reward: 3.83
episode: 2043
                score: 2.0
                             memory length: 444590
                                                      epsilon:
0.31770982000970116
                       steps: 181
                                      lr: 4e-05
                                                    evaluation reward: 3.81
episode: 2044
                score: 5.0
                             memory length: 444935
                                                      epsilon:
0.31702672000969684
                       steps: 345
                                      lr: 4e-05
                                                    evaluation reward: 3.84
episode: 2045
                score: 4.0
                             memory length: 445212
                                                      epsilon:
0.31647826000969337
                       steps: 277
                                      lr: 4e-05
                                                    evaluation reward: 3.85
                score: 3.0
                                                      epsilon:
episode: 2046
                             memory length: 445461
0.31598524000969025
                       steps: 249
                                      lr: 4e-05
                                                    evaluation reward: 3.86
episode: 2047
                                                      epsilon: 0.315630820009688
                score: 2.0
                             memory length: 445640
                             evaluation reward: 3.86
steps: 179
              lr: 4e-05
episode: 2048
                score: 5.0
                             memory length: 445946
                                                      epsilon: 0.3150249400096842
steps: 306
              lr: 4e-05
                            evaluation reward: 3.87
                             memory length: 446358
                                                      epsilon: 0.314209180009679
episode: 2049
                score: 7.0
steps: 412
              lr: 4e-05
                            evaluation reward: 3.9
episode: 2050
                             memory length: 446587
                                                      epsilon:
                score: 3.0
0.31375576000967614
                       steps: 229
                                      lr: 4e-05
                                                    evaluation reward: 3.91
episode: 2051
                score: 8.0
                             memory length: 447031
                                                      epsilon: 0.3128766400096706
steps: 444
              lr: 4e-05
                             evaluation reward: 3.97
                             memory length: 447241
episode: 2052
                score: 3.0
                                                      epsilon:
                       steps: 210
0.31246084000966795
                                      lr: 4e-05
                                                    evaluation reward: 3.93
                score: 3.0
                             memory length: 447468
                                                      epsilon: 0.3120113800096651
episode: 2053
steps: 227
              lr: 4e-05
                            evaluation reward: 3.93
episode: 2054
                score: 5.0
                             memory length: 447774
                                                      epsilon: 0.3114055000096613
steps: 306
              lr: 4e-05
                            evaluation reward: 3.95
episode: 2055
                score: 3.0
                             memory length: 448002
                                                      epsilon: 0.3109540600096584
steps: 228
              lr: 4e-05
                             evaluation reward: 3.95
episode: 2056
                score: 3.0
                             memory length: 448230
                                                      epsilon:
                                      lr: 4e-05
                       steps: 228
                                                    evaluation reward: 3.96
0.31050262000965556
episode: 2057
                score: 4.0
                             memory length: 448471
                                                      epsilon:
                       steps: 241
0.31002544000965254
                                      lr: 4e-05
                                                    evaluation reward: 3.98
                score: 2.0
                             memory length: 448652
                                                      epsilon: 0.3096670600096503
episode: 2058
                             evaluation reward: 3.98
steps: 181
              lr: 4e-05
episode: 2059
                score: 3.0
                             memory length: 448862
                                                      epsilon:
0.30925126000964764
                       steps: 210
                                      lr: 4e-05
                                                    evaluation reward: 3.98
                score: 3.0
                             memory length: 449090
                                                      epsilon: 0.3087998200096448
episode: 2060
steps: 228
              lr: 4e-05
                            evaluation reward: 3.95
episode: 2061
                score: 3.0
                             memory length: 449318
                                                      epsilon:
0.30834838000964193
                                                    evaluation reward: 3.92
                       steps: 228
                                      lr: 4e-05
                             memory length: 449546
                                                      epsilon: 0.3078969400096391
episode: 2062
                score: 3.0
                             evaluation reward: 3.92
steps: 228
              lr: 4e-05
                                                      epsilon: 0.3075385600096368
episode: 2063
                score: 2.0
                             memory length: 449727
steps: 181
              lr: 4e-05
                            evaluation reward: 3.91
episode: 2064
                score: 2.0
                             memory length: 449909
                                                      epsilon:
0.30717820000963453
                       steps: 182
                                      lr: 4e-05
                                                    evaluation reward: 3.88
episode: 2065
                score: 5.0
                             memory length: 450207
                                                      epsilon: 0.3065881600096308
```

```
lr: 4e-05
                            evaluation reward: 3.9
steps: 298
episode: 2066
                score: 2.0
                             memory length: 450388
                                                      epsilon: 0.3062297800096285
              lr: 4e-05
steps: 181
                             evaluation reward: 3.9
episode: 2067
                score: 2.0
                             memory length: 450569
                                                      epsilon:
0.30587140000962626
                       steps: 181
                                      lr: 4e-05
                                                    evaluation reward: 3.86
                score: 2.0
                                                      epsilon: 0.305513020009624
episode: 2068
                             memory length: 450750
steps: 181
              lr: 4e-05
                             evaluation reward: 3.84
episode: 2069
                score: 4.0
                             memory length: 451004
                                                      epsilon: 0.3050101000096208
steps: 254
              lr: 4e-05
                            evaluation reward: 3.84
episode: 2070
                score: 5.0
                             memory length: 451292
                                                      epsilon: 0.3044398600096172
steps: 288
              lr: 4e-05
                            evaluation reward: 3.84
episode: 2071
                score: 3.0
                             memory length: 451503
                                                      epsilon:
0.30402208000961456
                                      lr: 4e-05
                                                    evaluation reward: 3.82
                       steps: 211
episode: 2072
                score: 6.0
                             memory length: 451846
                                                      epsilon:
0.30334294000961026
                       steps: 343
                                      lr: 4e-05
                                                    evaluation reward: 3.84
                score: 4.0
episode: 2073
                             memory length: 452087
                                                      epsilon:
0.30286576000960724
                       steps: 241
                                      lr: 4e-05
                                                    evaluation reward: 3.84
                                                      epsilon: 0.3023173000096038
episode: 2074
                score: 4.0
                             memory length: 452364
                             evaluation reward: 3.82
steps: 277
              lr: 4e-05
episode: 2075
                             memory length: 452561
                                                      epsilon: 0.3019272400096013
                score: 2.0
steps: 197
              lr: 4e-05
                             evaluation reward: 3.79
                             memory length: 452867
episode: 2076
                score: 5.0
                                                      epsilon:
0.30132136000959747
                       steps: 306
                                      lr: 4e-05
                                                    evaluation reward: 3.79
                score: 7.0
                             memory length: 453246
                                                      epsilon: 0.3005709400095927
episode: 2077
              lr: 4e-05
                            evaluation reward: 3.8
steps: 379
                score: 4.0
                             memory length: 453524
episode: 2078
                                                      epsilon:
0.30002050000958924
                                      lr: 4e-05
                       steps: 278
                                                    evaluation reward: 3.82
episode: 2079
                score: 6.0
                             memory length: 453877
                                                      epsilon: 0.2993215600095848
steps: 353
              lr: 4e-05
                             evaluation reward: 3.84
episode: 2080
                score: 5.0
                             memory length: 454184
                                                      epsilon: 0.298713700009581
steps: 307
              lr: 4e-05
                            evaluation reward: 3.81
episode: 2081
                             memory length: 454538
                score: 6.0
                                                      epsilon:
                       steps: 354
0.29801278000957654
                                      lr: 4e-05
                                                    evaluation reward: 3.83
                score: 5.0
                             memory length: 454854
                                                      epsilon: 0.2973871000095726
episode: 2082
                             evaluation reward: 3.85
steps: 316
              lr: 4e-05
episode: 2083
                score: 6.0
                             memory length: 455208
                                                      epsilon:
0.29668618000956815
                       steps: 354
                                      lr: 4e-05
                                                    evaluation reward: 3.85
episode: 2084
                score: 4.0
                             memory length: 455482
                                                      epsilon: 0.2961436600095647
steps: 274
              lr: 4e-05
                            evaluation reward: 3.87
episode: 2085
                score: 2.0
                             memory length: 455664
                                                      epsilon:
0.29578330000956243
                                                    evaluation reward: 3.86
                       steps: 182
                                      lr: 4e-05
episode: 2086
                score: 6.0
                             memory length: 455990
                                                      epsilon:
0.29513782000955835
                       steps: 326
                                      lr: 4e-05
                                                    evaluation reward: 3.88
                                                      epsilon: 0.2942606800095528
episode: 2087
                score: 8.0
                             memory length: 456433
steps: 443
              lr: 4e-05
                             evaluation reward: 3.94
episode: 2088
                score: 2.0
                             memory length: 456614
                                                      epsilon:
0.29390230000955053
                       steps: 181
                                      lr: 4e-05
                                                    evaluation reward: 3.92
episode: 2089
                score: 4.0
                             memory length: 456870
                                                      epsilon: 0.2933954200095473
```

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evaluation reward: 3.9
steps: 256
              lr: 4e-05
episode: 2090
                score: 4.0
                             memory length: 457145
                                                      epsilon: 0.2928509200095439
              lr: 4e-05
steps: 275
                             evaluation reward: 3.88
episode: 2091
                score: 3.0
                             memory length: 457392
                                                      epsilon: 0.2923618600095408
steps: 247
              lr: 4e-05
                             evaluation reward: 3.89
episode: 2092
                             memory length: 457816
                                                      epsilon: 0.2915223400095355
                score: 8.0
steps: 424
              lr: 4e-05
                             evaluation reward: 3.93
episode: 2093
                score: 4.0
                             memory length: 458073
                                                      epsilon:
0.29101348000953225
                                                    evaluation reward: 3.94
                       steps: 257
                                      lr: 4e-05
                score: 6.0
episode: 2094
                             memory length: 458448
                                                      epsilon:
0.29027098000952756
                       steps: 375
                                      lr: 4e-05
                                                    evaluation reward: 3.96
episode: 2095
                score: 4.0
                              memory length: 458704
                                                      epsilon:
0.28976410000952435
                       steps: 256
                                      lr: 4e-05
                                                    evaluation reward: 3.96
                                                      epsilon: 0.2894096800095221
episode: 2096
                score: 2.0
                             memory length: 458883
steps: 179
              lr: 4e-05
                             evaluation reward: 3.95
                             memory length: 459139
                                                      epsilon: 0.2889028000095189
episode: 2097
                score: 4.0
steps: 256
              lr: 4e-05
                             evaluation reward: 3.97
episode: 2098
                             memory length: 459321
                                                      epsilon: 0.2885424400095166
                score: 2.0
steps: 182
              lr: 4e-05
                             evaluation reward: 3.93
episode: 2099
                             memory length: 459605
                score: 4.0
                                                      epsilon:
                       steps: 284
                                                    evaluation reward: 3.91
0.28798012000951306
                                      lr: 4e-05
                                                      epsilon: 0.2876197600095108
episode: 2100
                score: 2.0
                             memory length: 459787
steps: 182
              lr: 4e-05
                             evaluation reward: 3.9
                             memory length: 459996
                                                      epsilon:
episode: 2101
                score: 3.0
0.28720594000950816
                       steps: 209
                                      lr: 4e-05
                                                    evaluation reward: 3.9
episode: 2102
                score: 5.0
                             memory length: 460321
                                                      epsilon: 0.2865624400095041
                             evaluation reward: 3.89
steps: 325
              lr: 4e-05
episode: 2103
                score: 3.0
                             memory length: 460531
                                                      epsilon:
0.28614664000950146
                       steps: 210
                                      lr: 4e-05
                                                    evaluation reward: 3.9
episode: 2104
                score: 4.0
                             memory length: 460790
                                                      epsilon: 0.2856338200094982
steps: 259
              lr: 4e-05
                             evaluation reward: 3.88
episode: 2105
                score: 5.0
                             memory length: 461136
                                                      epsilon: 0.2849487400094939
steps: 346
              lr: 4e-05
                             evaluation reward: 3.91
episode: 2106
                score: 6.0
                             memory length: 461499
                                                      epsilon:
0.28423000000948934
                                      lr: 4e-05
                       steps: 363
                                                    evaluation reward: 3.95
                score: 3.0
                                                      epsilon: 0.2838122200094867
episode: 2107
                             memory length: 461710
steps: 211
              lr: 4e-05
                             evaluation reward: 3.92
                             memory length: 461964
episode: 2108
                score: 4.0
                                                      epsilon: 0.2833093000094835
steps: 254
              lr: 4e-05
                             evaluation reward: 3.93
episode: 2109
                score: 8.0
                             memory length: 462378
                                                      epsilon: 0.2824895800094783
                             evaluation reward: 3.97
steps: 414
              lr: 4e-05
                             memory length: 462673
episode: 2110
                score: 4.0
                                                      epsilon:
0.28190548000947463
                       steps: 295
                                      lr: 4e-05
                                                    evaluation reward: 3.97
episode: 2111
                score: 10.0
                               memory length: 463147
                                                       epsilon:
0.2809669600094687
                      steps: 474
                                     lr: 4e-05
                                                   evaluation reward: 4.05
episode: 2112
                score: 7.0
                             memory length: 463541
                                                      epsilon:
0.28018684000946376
                       steps: 394
                                      lr: 4e-05
                                                    evaluation reward: 4.07
                             memory length: 463772
episode: 2113
                score: 3.0
                                                      epsilon:
```

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lr: 4e-05
0.27972946000946086
                       steps: 231
                                                    evaluation reward: 4.05
                                                      epsilon: 0.2790523000094566
episode: 2114
                score: 6.0
                             memory length: 464114
                            evaluation reward: 4.07
steps: 342
              lr: 4e-05
episode: 2115
                score: 5.0
                             memory length: 464405
                                                      epsilon:
0.27847612000945293
                       steps: 291
                                      lr: 4e-05
                                                    evaluation reward: 4.09
                score: 2.0
                                                      epsilon: 0.2781197200094507
episode: 2116
                             memory length: 464585
steps: 180
              lr: 4e-05
                            evaluation reward: 4.08
episode: 2117
                score: 5.0
                             memory length: 464878
                                                      epsilon: 0.277539580009447
steps: 293
              lr: 4e-05
                            evaluation reward: 4.11
episode: 2118
                score: 3.0
                             memory length: 465089
                                                      epsilon:
0.27712180000944436
                       steps: 211
                                      lr: 4e-05
                                                    evaluation reward: 4.09
episode: 2119
                score: 3.0
                             memory length: 465320
                                                      epsilon:
                       steps: 231
0.27666442000944147
                                      lr: 4e-05
                                                    evaluation reward: 4.03
episode: 2120
                score: 3.0
                             memory length: 465530
                                                      epsilon:
0.27624862000943884
                       steps: 210
                                      lr: 4e-05
                                                    evaluation reward: 4.02
                score: 6.0
episode: 2121
                             memory length: 465874
                                                      epsilon:
0.27556750000943453
                       steps: 344
                                      lr: 4e-05
                                                    evaluation reward: 4.06
                                                      epsilon: 0.2750527000094313
episode: 2122
                score: 4.0
                             memory length: 466134
                             evaluation reward: 4.05
steps: 260
              lr: 4e-05
episode: 2123
                             memory length: 466441
                                                      epsilon: 0.2744448400094274
                score: 5.0
steps: 307
              lr: 4e-05
                             evaluation reward: 4.05
                             memory length: 466798
episode: 2124
                score: 6.0
                                                      epsilon:
0.27373798000942295
                       steps: 357
                                      lr: 4e-05
                                                    evaluation reward: 4.08
                score: 3.0
                             memory length: 467028
                                                      epsilon: 0.2732825800094201
episode: 2125
steps: 230
              lr: 4e-05
                             evaluation reward: 4.08
episode: 2126
                score: 2.0
                             memory length: 467209
                                                      epsilon: 0.2729242000094178
steps: 181
              lr: 4e-05
                            evaluation reward: 4.07
episode: 2127
                score: 5.0
                             memory length: 467505
                                                      epsilon: 0.2723381200094141
steps: 296
              lr: 4e-05
                             evaluation reward: 4.09
episode: 2128
                score: 3.0
                             memory length: 467733
                                                      epsilon:
0.27188668000941124
                                      1r: 4e-05
                                                    evaluation reward: 4.1
                       steps: 228
episode: 2129
                score: 3.0
                             memory length: 467961
                                                      epsilon: 0.2714352400094084
steps: 228
              lr: 4e-05
                             evaluation reward: 4.11
episode: 2130
                                                      epsilon: 0.2708808400094049
                score: 5.0
                             memory length: 468241
                             evaluation reward: 4.11
steps: 280
              lr: 4e-05
episode: 2131
                score: 4.0
                             memory length: 468483
                                                      epsilon:
0.27040168000940185
                       steps: 242
                                      lr: 4e-05
                                                    evaluation reward: 4.12
                score: 3.0
                             memory length: 468708
                                                      epsilon: 0.269956180009399
episode: 2132
steps: 225
              lr: 4e-05
                            evaluation reward: 4.11
episode: 2133
                score: 3.0
                             memory length: 468953
                                                      epsilon:
0.26947108000939596
                                                    evaluation reward: 4.09
                       steps: 245
                                      lr: 4e-05
episode: 2134
                score: 5.0
                             memory length: 469280
                                                      epsilon:
0.26882362000939186
                       steps: 327
                                      lr: 4e-05
                                                    evaluation reward: 4.12
                                                      epsilon: 0.2684652400093896
episode: 2135
                score: 2.0
                             memory length: 469461
steps: 181
              lr: 4e-05
                             evaluation reward: 4.1
episode: 2136
                score: 8.0
                             memory length: 469901
                                                      epsilon: 0.2675940400093841
steps: 440
              lr: 4e-05
                            evaluation reward: 4.15
episode: 2137
                             memory length: 470162
                                                      epsilon: 0.2670772600093808
                score: 4.0
```

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steps: 261
              lr: 4e-05
                            evaluation reward: 4.16
episode: 2138
                score: 4.0
                             memory length: 470440
                                                      epsilon:
                                      lr: 4e-05
                                                    evaluation reward: 4.17
0.26652682000937733
                       steps: 278
                score: 11.0
                              memory length: 470826
episode: 2139
                                                       epsilon:
0.2657625400093725
                      steps: 386
                                     lr: 4e-05
                                                   evaluation reward: 4.21
episode: 2140
                score: 6.0
                             memory length: 471166
                                                      epsilon:
0.26508934000936824
                       steps: 340
                                      lr: 4e-05
                                                    evaluation reward: 4.23
episode: 2141
                score: 3.0
                             memory length: 471396
                                                      epsilon:
0.26463394000936535
                       steps: 230
                                      lr: 4e-05
                                                    evaluation reward: 4.24
episode: 2142
                score: 7.0
                             memory length: 471763
                                                      epsilon:
0.26390728000936076
                       steps: 367
                                      lr: 4e-05
                                                    evaluation reward: 4.24
                                                      epsilon: 0.2631271600093558
episode: 2143
                score: 7.0
                             memory length: 472157
                             evaluation reward: 4.29
steps: 394
              lr: 4e-05
                                                      epsilon:
episode: 2144
                score: 3.0
                             memory length: 472385
0.26267572000935296
                       steps: 228
                                      lr: 4e-05
                                                    evaluation reward: 4.27
episode: 2145
                score: 7.0
                             memory length: 472752
                                                      epsilon:
0.26194906000934837
                       steps: 367
                                      lr: 4e-05
                                                    evaluation reward: 4.3
episode: 2146
                score: 5.0
                                                      epsilon: 0.2613412000093445
                             memory length: 473059
              lr: 4e-05
                             evaluation reward: 4.32
steps: 307
episode: 2147
                             memory length: 473333
                                                      epsilon: 0.2607986800093411
                score: 4.0
steps: 274
              lr: 4e-05
                            evaluation reward: 4.34
                             memory length: 473613
episode: 2148
                score: 5.0
                                                      epsilon: 0.2602442800093376
steps: 280
              lr: 4e-05
                            evaluation reward: 4.34
                             memory length: 473861
                                                      epsilon: 0.2597532400093345
episode: 2149
                score: 3.0
steps: 248
              lr: 4e-05
                            evaluation reward: 4.3
episode: 2150
                score: 5.0
                             memory length: 474189
                                                      epsilon:
                       steps: 328
0.25910380000933037
                                      lr: 4e-05
                                                    evaluation reward: 4.32
episode: 2151
                score: 2.0
                             memory length: 474368
                                                      epsilon: 0.2587493800093281
steps: 179
              lr: 4e-05
                             evaluation reward: 4.26
episode: 2152
                score: 7.0
                             memory length: 474758
                                                      epsilon:
                                      lr: 4e-05
0.25797718000932324
                       steps: 390
                                                    evaluation reward: 4.3
episode: 2153
                score: 3.0
                             memory length: 475005
                                                      epsilon:
0.25748812000932014
                       steps: 247
                                      lr: 4e-05
                                                    evaluation reward: 4.3
                             memory length: 475254
                                                      epsilon: 0.256995100009317
episode: 2154
                score: 3.0
                             evaluation reward: 4.28
steps: 249
              lr: 4e-05
episode: 2155
                score: 5.0
                             memory length: 475561
                                                      epsilon: 0.2563872400093132
steps: 307
              lr: 4e-05
                            evaluation reward: 4.3
episode: 2156
                             memory length: 475809
                score: 3.0
                                                      epsilon:
                                                    evaluation reward: 4.3
0.25589620000931007
                       steps: 248
                                      lr: 4e-05
episode: 2157
                score: 5.0
                             memory length: 476115
                                                      epsilon:
0.25529032000930624
                       steps: 306
                                      lr: 4e-05
                                                    evaluation reward: 4.31
                                                      epsilon: 0.2547458200093028
episode: 2158
                score: 4.0
                             memory length: 476390
                             evaluation reward: 4.33
steps: 275
              lr: 4e-05
                                                      epsilon: 0.2538647200092972
episode: 2159
                score: 8.0
                             memory length: 476835
steps: 445
              lr: 4e-05
                            evaluation reward: 4.38
episode: 2160
                score: 4.0
                             memory length: 477100
                                                      epsilon: 0.2533400200092939
steps: 265
              lr: 4e-05
                             evaluation reward: 4.39
episode: 2161
                             memory length: 477491
                                                      epsilon: 0.252565840009289
                score: 7.0
```

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lr: 4e-05
steps: 391
                             evaluation reward: 4.43
episode: 2162
                score: 3.0
                             memory length: 477703
                                                      epsilon:
                       steps: 212
0.25214608000928634
                                      lr: 4e-05
                                                    evaluation reward: 4.43
                score: 5.0
                                                      epsilon: 0.2515382200092825
episode: 2163
                             memory length: 478010
steps: 307
              lr: 4e-05
                             evaluation reward: 4.46
                             memory length: 478191
episode: 2164
                score: 2.0
                                                      epsilon:
0.25117984000928023
                       steps: 181
                                      lr: 4e-05
                                                    evaluation reward: 4.46
episode: 2165
                score: 8.0
                             memory length: 478635
                                                      epsilon:
                                                    evaluation reward: 4.49
0.25030072000927467
                       steps: 444
                                      lr: 4e-05
episode: 2166
                                                      epsilon:
                score: 6.0
                             memory length: 478977
0.24962356000927038
                       steps: 342
                                      lr: 4e-05
                                                    evaluation reward: 4.53
episode: 2167
                score: 8.0
                             memory length: 479418
                                                      epsilon:
0.24875038000926486
                       steps: 441
                                      lr: 4e-05
                                                    evaluation reward: 4.59
episode: 2168
                score: 5.0
                             memory length: 479714
                                                      epsilon:
0.24816430000926115
                       steps: 296
                                      lr: 4e-05
                                                    evaluation reward: 4.62
episode: 2169
                score: 2.0
                             memory length: 479895
                                                      epsilon:
0.24780592000925888
                       steps: 181
                                      lr: 4e-05
                                                    evaluation reward: 4.6
                             memory length: 480218
                score: 5.0
episode: 2170
                                                      epsilon:
                       steps: 323
                                      lr: 4e-05
                                                    evaluation reward: 4.6
0.24716638000925484
episode: 2171
                score: 5.0
                             memory length: 480524
                                                      epsilon: 0.246560500009251
steps: 306
              lr: 4e-05
                             evaluation reward: 4.62
episode: 2172
                score: 2.0
                             memory length: 480705
                                                      epsilon:
0.24620212000924874
                       steps: 181
                                      lr: 4e-05
                                                    evaluation reward: 4.58
                score: 4.0
episode: 2173
                             memory length: 480962
                                                      epsilon:
0.24569326000924552
                       steps: 257
                                      lr: 4e-05
                                                    evaluation reward: 4.58
                score: 6.0
                             memory length: 481302
episode: 2174
                                                      epsilon:
0.24502006000924126
                       steps: 340
                                      lr: 4e-05
                                                    evaluation reward: 4.6
episode: 2175
                score: 3.0
                             memory length: 481549
                                                      epsilon:
0.24453100000923816
                       steps: 247
                                      lr: 4e-05
                                                    evaluation reward: 4.61
episode: 2176
                score: 2.0
                             memory length: 481730
                                                      epsilon: 0.2441726200092359
              lr: 4e-05
steps: 181
                             evaluation reward: 4.58
episode: 2177
                score: 3.0
                             memory length: 481974
                                                      epsilon:
0.24368950000923284
                       steps: 244
                                      lr: 4e-05
                                                    evaluation reward: 4.54
                score: 5.0
episode: 2178
                             memory length: 482282
                                                      epsilon:
                       steps: 308
0.24307966000922898
                                      lr: 4e-05
                                                    evaluation reward: 4.55
episode: 2179
                score: 5.0
                             memory length: 482605
                                                      epsilon:
0.24244012000922494
                       steps: 323
                                      lr: 4e-05
                                                    evaluation reward: 4.54
episode: 2180
                score: 4.0
                             memory length: 482864
                                                      epsilon: 0.2419273000092217
steps: 259
              lr: 4e-05
                             evaluation reward: 4.53
episode: 2181
                score: 4.0
                             memory length: 483125
                                                      epsilon:
0.24141052000921842
                                                    evaluation reward: 4.51
                       steps: 261
                                      lr: 4e-05
                             memory length: 483337
episode: 2182
                score: 3.0
                                                      epsilon:
0.24099076000921577
                       steps: 212
                                      lr: 4e-05
                                                    evaluation reward: 4.49
                                                      epsilon: 0.2406007000092133
episode: 2183
                score: 2.0
                             memory length: 483534
steps: 197
              lr: 4e-05
                             evaluation reward: 4.45
episode: 2184
                score: 4.0
                             memory length: 483795
                                                      epsilon:
0.24008392000921003
                       steps: 261
                                      lr: 4e-05
                                                    evaluation reward: 4.45
                score: 4.0
                             memory length: 484072
episode: 2185
                                                      epsilon:
```

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steps: 277
0.23953546000920656
                                      lr: 4e-05
                                                    evaluation reward: 4.47
episode: 2186
                score: 4.0
                             memory length: 484346
                                                      epsilon:
                       steps: 274
0.23899294000920313
                                      lr: 4e-05
                                                    evaluation reward: 4.45
                score: 3.0
                                                      epsilon: 0.2385474400092003
episode: 2187
                             memory length: 484571
steps: 225
              lr: 4e-05
                            evaluation reward: 4.4
episode: 2188
                             memory length: 484830
                score: 4.0
                                                      epsilon:
0.23803462000919706
                       steps: 259
                                      lr: 4e-05
                                                    evaluation reward: 4.42
                score: 4.0
episode: 2189
                             memory length: 485091
                                                      epsilon: 0.2375178400091938
                            evaluation reward: 4.42
steps: 261
              lr: 4e-05
episode: 2190
                score: 3.0
                             memory length: 485318
                                                      epsilon:
0.23706838000919095
                       steps: 227
                                      lr: 4e-05
                                                    evaluation reward: 4.41
                score: 4.0
                                                      epsilon: 0.2365555600091877
episode: 2191
                             memory length: 485577
              lr: 4e-05
                            evaluation reward: 4.42
steps: 259
episode: 2192
                score: 2.0
                             memory length: 485758
                                                      epsilon:
0.23619718000918544
                       steps: 181
                                      lr: 4e-05
                                                    evaluation reward: 4.36
                score: 5.0
episode: 2193
                             memory length: 486103
                                                      epsilon:
0.23551408000918111
                       steps: 345
                                      lr: 4e-05
                                                    evaluation reward: 4.37
episode: 2194
                score: 3.0
                             memory length: 486328
                                                      epsilon: 0.2350685800091783
              lr: 4e-05
                            evaluation reward: 4.34
steps: 225
episode: 2195
                             memory length: 486605
                score: 4.0
                                                      epsilon:
                                                    evaluation reward: 4.34
0.23452012000917483
                       steps: 277
                                      lr: 4e-05
episode: 2196
                score: 3.0
                             memory length: 486851
                                                      epsilon:
                       steps: 246
0.23403304000917174
                                      lr: 4e-05
                                                    evaluation reward: 4.35
                score: 4.0
                                                      epsilon: 0.2335182400091685
episode: 2197
                             memory length: 487111
steps: 260
              lr: 4e-05
                            evaluation reward: 4.35
episode: 2198
                score: 8.0
                             memory length: 487424
                                                      epsilon:
0.23289850000916457
                                      lr: 4e-05
                       steps: 313
                                                    evaluation reward: 4.41
episode: 2199
                score: 4.0
                             memory length: 487717
                                                      epsilon: 0.2323183600091609
steps: 293
              lr: 4e-05
                            evaluation reward: 4.41
episode: 2200
                score: 3.0
                             memory length: 487929
                                                      epsilon:
                                      lr: 4e-05
0.23189860000915824
                       steps: 212
                                                    evaluation reward: 4.42
episode: 2201
                score: 4.0
                             memory length: 488207
                                                      epsilon:
                       steps: 278
0.23134816000915476
                                      lr: 4e-05
                                                    evaluation reward: 4.43
                score: 2.0
                             memory length: 488388
                                                      epsilon: 0.2309897800091525
episode: 2202
                            evaluation reward: 4.4
steps: 181
              lr: 4e-05
episode: 2203
                score: 2.0
                             memory length: 488569
                                                      epsilon:
0.23063140000915022
                       steps: 181
                                      lr: 4e-05
                                                    evaluation reward: 4.39
episode: 2204
                score: 3.0
                             memory length: 488799
                                                      epsilon:
                                                    evaluation reward: 4.38
0.23017600000914734
                       steps: 230
                                      lr: 4e-05
episode: 2205
                score: 4.0
                             memory length: 489058
                                                      epsilon: 0.2296631800091441
                            evaluation reward: 4.37
steps: 259
              lr: 4e-05
                             memory length: 489356
                                                      epsilon:
episode: 2206
                score: 5.0
0.22907314000914036
                       steps: 298
                                      lr: 4e-05
                                                    evaluation reward: 4.36
episode: 2207
                score: 5.0
                             memory length: 489652
                                                      epsilon:
0.22848706000913666
                       steps: 296
                                      lr: 4e-05
                                                    evaluation reward: 4.38
episode: 2208
                score: 6.0
                             memory length: 489948
                                                      epsilon:
0.22790098000913295
                       steps: 296
                                      lr: 4e-05
                                                    evaluation reward: 4.4
episode: 2209
                score: 3.0
                             memory length: 490177
                                                      epsilon:
```

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0.22744756000913008
                       steps: 229
                                      lr: 4e-05
                                                    evaluation reward: 4.35
episode: 2210
                score: 3.0
                             memory length: 490387
                                                      epsilon:
                       steps: 210
0.22703176000912745
                                      lr: 4e-05
                                                    evaluation reward: 4.34
                score: 7.0
                             memory length: 490744
episode: 2211
                                                      epsilon:
0.22632490000912298
                       steps: 357
                                      lr: 4e-05
                                                    evaluation reward: 4.31
                score: 2.0
                                                      epsilon: 0.2259645400091207
episode: 2212
                             memory length: 490926
                            evaluation reward: 4.26
steps: 182
              lr: 4e-05
episode: 2213
                score: 2.0
                             memory length: 491125
                                                      epsilon: 0.2255705200091182
                            evaluation reward: 4.25
steps: 199
              lr: 4e-05
episode: 2214
                score: 4.0
                             memory length: 491381
                                                      epsilon: 0.225063640009115
steps: 256
              lr: 4e-05
                            evaluation reward: 4.23
episode: 2215
                score: 4.0
                             memory length: 491657
                                                      epsilon:
0.22451716000911154
                       steps: 276
                                      lr: 4e-05
                                                    evaluation reward: 4.22
                                                      epsilon: 0.223798420009107
episode: 2216
                score: 6.0
                             memory length: 492020
steps: 363
              lr: 4e-05
                             evaluation reward: 4.26
                             memory length: 492347
                                                      epsilon: 0.2231509600091029
episode: 2217
                score: 6.0
steps: 327
              lr: 4e-05
                            evaluation reward: 4.27
episode: 2218
                                                      epsilon:
                score: 2.0
                             memory length: 492528
0.22279258000910063
                                      lr: 4e-05
                                                    evaluation reward: 4.26
                       steps: 181
episode: 2219
                score: 4.0
                             memory length: 492806
                                                      epsilon:
0.22224214000909714
                                      lr: 4e-05
                       steps: 278
                                                    evaluation reward: 4.27
                                                      epsilon: 0.2218263400090945
episode: 2220
                score: 3.0
                             memory length: 493016
steps: 210
              lr: 4e-05
                            evaluation reward: 4.27
                             memory length: 493197
                                                      epsilon:
episode: 2221
                score: 2.0
0.22146796000909225
                       steps: 181
                                      lr: 4e-05
                                                    evaluation reward: 4.23
                score: 4.0
                             memory length: 493473
                                                      epsilon: 0.2209214800090888
episode: 2222
                            evaluation reward: 4.23
steps: 276
              lr: 4e-05
episode: 2223
                score: 8.0
                             memory length: 493943
                                                      epsilon: 0.2199908800090829
steps: 470
              lr: 4e-05
                            evaluation reward: 4.26
episode: 2224
                score: 3.0
                             memory length: 494154
                                                      epsilon:
                                      lr: 4e-05
0.21957310000908026
                                                    evaluation reward: 4.23
                       steps: 211
episode: 2225
                score: 3.0
                             memory length: 494363
                                                      epsilon:
                       steps: 209
0.21915928000907764
                                      lr: 4e-05
                                                    evaluation reward: 4.23
                score: 6.0
                             memory length: 494734
                                                      epsilon: 0.218424700009073
episode: 2226
                            evaluation reward: 4.27
steps: 371
              lr: 4e-05
episode: 2227
                score: 4.0
                             memory length: 495014
                                                      epsilon:
0.21787030000906948
                       steps: 280
                                      lr: 4e-05
                                                    evaluation reward: 4.26
                score: 4.0
                             memory length: 495275
                                                      epsilon:
episode: 2228
                                                    evaluation reward: 4.27
0.21735352000906621
                       steps: 261
                                      lr: 4e-05
episode: 2229
                score: 5.0
                             memory length: 495563
                                                      epsilon: 0.2167832800090626
                            evaluation reward: 4.29
steps: 288
              lr: 4e-05
                             memory length: 495745
                                                      epsilon:
episode: 2230
                score: 2.0
0.21642292000906033
                       steps: 182
                                      lr: 4e-05
                                                    evaluation reward: 4.26
episode: 2231
                score: 4.0
                             memory length: 496004
                                                      epsilon:
0.21591010000905708
                       steps: 259
                                      lr: 4e-05
                                                    evaluation reward: 4.26
episode: 2232
                score: 4.0
                             memory length: 496263
                                                      epsilon:
0.21539728000905384
                       steps: 259
                                      lr: 4e-05
                                                    evaluation reward: 4.27
                score: 4.0
                             memory length: 496505
                                                      epsilon: 0.2149181200090508
episode: 2233
```

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steps: 242
              lr: 4e-05
                            evaluation reward: 4.28
episode: 2234
                score: 6.0
                             memory length: 496850
                                                      epsilon:
                       steps: 345
0.21423502000904648
                                      lr: 4e-05
                                                    evaluation reward: 4.29
                score: 2.0
episode: 2235
                             memory length: 497031
                                                      epsilon:
                       steps: 181
0.21387664000904422
                                      lr: 4e-05
                                                    evaluation reward: 4.29
                                                      epsilon: 0.2134648000090416
episode: 2236
                score: 3.0
                             memory length: 497239
steps: 208
              lr: 4e-05
                            evaluation reward: 4.24
episode: 2237
                score: 5.0
                             memory length: 497526
                                                      epsilon:
0.21289654000903802
                       steps: 287
                                      lr: 4e-05
                                                    evaluation reward: 4.25
episode: 2238
                score: 2.0
                             memory length: 497707
                                                      epsilon:
0.21253816000903575
                       steps: 181
                                      lr: 4e-05
                                                    evaluation reward: 4.23
                                                      epsilon: 0.2118372400090313
episode: 2239
                score: 6.0
                             memory length: 498061
steps: 354
              lr: 4e-05
                            evaluation reward: 4.18
                             memory length: 498499
episode: 2240
                score: 8.0
                                                      epsilon:
0.21097000000902583
                       steps: 438
                                      lr: 4e-05
                                                    evaluation reward: 4.2
episode: 2241
                score: 5.0
                             memory length: 498807
                                                      epsilon:
0.21036016000902197
                       steps: 308
                                      lr: 4e-05
                                                    evaluation reward: 4.22
                score: 5.0
                             memory length: 499121
episode: 2242
                                                      epsilon:
                       steps: 314
                                      lr: 4e-05
                                                    evaluation reward: 4.2
0.20973844000901803
episode: 2243
                score: 4.0
                             memory length: 499379
                                                      epsilon: 0.2092276000090148
steps: 258
              lr: 4e-05
                            evaluation reward: 4.17
                             memory length: 499721
episode: 2244
                score: 6.0
                                                      epsilon:
0.20855044000901052
                       steps: 342
                                      lr: 4e-05
                                                    evaluation reward: 4.2
                score: 6.0
                             memory length: 500063
episode: 2245
                                                      epsilon:
0.20787328000900623
                       steps: 342
                                      lr: 4e-05
                                                    evaluation reward: 4.19
                score: 5.0
                             memory length: 500351
episode: 2246
                                                      epsilon:
0.20730304000900263
                       steps: 288
                                      lr: 4e-05
                                                    evaluation reward: 4.19
                                                      epsilon: 0.2066991400089988
episode: 2247
                score: 5.0
                             memory length: 500656
steps: 305
              lr: 4e-05
                            evaluation reward: 4.2
episode: 2248
                score: 3.0
                             memory length: 500884
                                                      epsilon:
                                      lr: 4e-05
0.20624770000899595
                       steps: 228
                                                    evaluation reward: 4.18
episode: 2249
                score: 6.0
                             memory length: 501209
                                                      epsilon:
0.20560420000899188
                       steps: 325
                                      lr: 4e-05
                                                    evaluation reward: 4.21
                score: 4.0
episode: 2250
                             memory length: 501468
                                                      epsilon:
0.20509138000898863
                       steps: 259
                                      lr: 4e-05
                                                    evaluation reward: 4.2
                score: 3.0
episode: 2251
                             memory length: 501717
                                                      epsilon: 0.2045983600089855
steps: 249
              lr: 4e-05
                            evaluation reward: 4.21
episode: 2252
                             memory length: 502011
                score: 4.0
                                                      epsilon:
0.20401624000898183
                                                    evaluation reward: 4.18
                       steps: 294
                                      lr: 4e-05
episode: 2253
                score: 4.0
                             memory length: 502254
                                                      epsilon: 0.2035351000089788
                            evaluation reward: 4.19
steps: 243
              lr: 4e-05
                             memory length: 502435
                                                      epsilon:
episode: 2254
                score: 2.0
0.20317672000897652
                       steps: 181
                                      lr: 4e-05
                                                    evaluation reward: 4.18
episode: 2255
                score: 10.0
                              memory length: 502943
                                                       epsilon:
                       steps: 508
0.20217088000897016
                                      lr: 4e-05
                                                    evaluation reward: 4.23
episode: 2256
                score: 2.0
                             memory length: 503140
                                                      epsilon: 0.2017808200089677
steps: 197
              lr: 4e-05
                            evaluation reward: 4.22
episode: 2257
                             memory length: 503482
                                                      epsilon: 0.2011036600089634
                score: 6.0
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lr: 4e-05
                            evaluation reward: 4.23
steps: 342
episode: 2258
                score: 3.0
                             memory length: 503713
                                                      epsilon: 0.2006462800089605
              lr: 4e-05
steps: 231
                            evaluation reward: 4.22
episode: 2259
                score: 5.0
                             memory length: 504018
                                                      epsilon: 0.2000423800089567
steps: 305
              lr: 4e-05
                             evaluation reward: 4.19
episode: 2260
                             memory length: 504344
                score: 6.0
                                                      epsilon: 0.1993969000089526
steps: 326
              lr: 4e-05
                             evaluation reward: 4.21
episode: 2261
                score: 7.0
                             memory length: 504718
                                                      epsilon:
0.19865638000894792
                                      lr: 4e-05
                                                    evaluation reward: 4.21
                       steps: 374
episode: 2262
                score: 4.0
                             memory length: 504992
                                                      epsilon: 0.1981138600089445
steps: 274
              lr: 4e-05
                            evaluation reward: 4.22
episode: 2263
                score: 3.0
                             memory length: 505241
                                                      epsilon:
0.19762084000894137
                       steps: 249
                                      lr: 4e-05
                                                    evaluation reward: 4.2
episode: 2264
                score: 5.0
                             memory length: 505529
                                                      epsilon:
0.19705060000893776
                       steps: 288
                                      lr: 4e-05
                                                    evaluation reward: 4.23
episode: 2265
                score: 4.0
                             memory length: 505808
                                                      epsilon:
0.19649818000893426
                       steps: 279
                                      lr: 4e-05
                                                    evaluation reward: 4.19
                             memory length: 506112
                score: 5.0
episode: 2266
                                                      epsilon:
0.19589626000893046
                       steps: 304
                                      lr: 4e-05
                                                    evaluation reward: 4.18
episode: 2267
                score: 2.0
                             memory length: 506293
                                                      epsilon: 0.1955378800089282
steps: 181
              lr: 4e-05
                            evaluation reward: 4.12
episode: 2268
                score: 4.0
                             memory length: 506534
                                                      epsilon:
0.19506070000892517
                       steps: 241
                                      lr: 4e-05
                                                    evaluation reward: 4.11
                score: 5.0
episode: 2269
                             memory length: 506860
                                                      epsilon:
0.19441522000892109
                       steps: 326
                                      lr: 4e-05
                                                    evaluation reward: 4.14
                score: 3.0
                             memory length: 507085
episode: 2270
                                                      epsilon:
                       steps: 225
0.19396972000891827
                                      lr: 4e-05
                                                    evaluation reward: 4.12
episode: 2271
                score: 4.0
                             memory length: 507341
                                                      epsilon:
0.19346284000891506
                       steps: 256
                                      lr: 4e-05
                                                    evaluation reward: 4.11
                score: 2.0
                             memory length: 507522
                                                      epsilon: 0.1931044600089128
episode: 2272
              lr: 4e-05
steps: 181
                             evaluation reward: 4.11
episode: 2273
                score: 2.0
                             memory length: 507704
                                                      epsilon: 0.1927441000089105
steps: 182
              lr: 4e-05
                            evaluation reward: 4.09
episode: 2274
                             memory length: 507904
                                                      epsilon: 0.192348100008908
                score: 2.0
                             evaluation reward: 4.05
steps: 200
              lr: 4e-05
                                                      epsilon: 0.1918590400089049
episode: 2275
                score: 3.0
                             memory length: 508151
steps: 247
              lr: 4e-05
                            evaluation reward: 4.05
episode: 2276
                score: 5.0
                             memory length: 508439
                                                      epsilon: 0.1912888000089013
steps: 288
              lr: 4e-05
                            evaluation reward: 4.08
episode: 2277
                score: 2.0
                             memory length: 508620
                                                      epsilon:
0.19093042000889904
                                                    evaluation reward: 4.07
                       steps: 181
                                      lr: 4e-05
                             memory length: 508848
                score: 3.0
episode: 2278
                                                      epsilon:
0.19047898000889618
                       steps: 228
                                      lr: 4e-05
                                                    evaluation reward: 4.05
                                                      epsilon: 0.1899899200088931
episode: 2279
                score: 3.0
                             memory length: 509095
steps: 247
              lr: 4e-05
                             evaluation reward: 4.03
episode: 2280
                score: 7.0
                             memory length: 509469
                                                      epsilon: 0.1892494000088884
steps: 374
              lr: 4e-05
                             evaluation reward: 4.06
episode: 2281
                             memory length: 509814
                score: 6.0
                                                      epsilon:
```

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0.18856630000888408
                                                    evaluation reward: 4.08
                       steps: 345
                                      lr: 4e-05
episode: 2282
                score: 5.0
                             memory length: 510094
                                                       epsilon:
                       steps: 280
0.18801190000888057
                                      lr: 4e-05
                                                    evaluation reward: 4.1
                score: 2.0
episode: 2283
                              memory length: 510274
                                                       epsilon:
                       steps: 180
0.18765550000887832
                                      lr: 4e-05
                                                    evaluation reward: 4.1
episode: 2284
                score: 8.0
                             memory length: 510697
                                                       epsilon:
0.18681796000887302
                       steps: 423
                                      lr: 4e-05
                                                    evaluation reward: 4.14
episode: 2285
                score: 5.0
                             memory length: 511002
                                                       epsilon: 0.1862140600088692
                             evaluation reward: 4.15
steps: 305
              lr: 4e-05
episode: 2286
                score: 6.0
                             memory length: 511342
                                                       epsilon:
0.18554086000886494
                       steps: 340
                                      lr: 4e-05
                                                    evaluation reward: 4.17
episode: 2287
                score: 4.0
                              memory length: 511583
                                                       epsilon:
0.18506368000886192
                       steps: 241
                                      lr: 4e-05
                                                    evaluation reward: 4.18
                                                       epsilon: 0.1843192000088572
episode: 2288
                score: 7.0
                             memory length: 511959
steps: 376
              lr: 4e-05
                             evaluation reward: 4.21
                             memory length: 512218
episode: 2289
                score: 4.0
                                                       epsilon:
0.18380638000885396
                       steps: 259
                                      lr: 4e-05
                                                    evaluation reward: 4.21
                score: 4.0
episode: 2290
                             memory length: 512492
                                                       epsilon:
                                      lr: 4e-05
                                                    evaluation reward: 4.22
0.18326386000885053
                       steps: 274
episode: 2291
                score: 9.0
                             memory length: 512960
                                                       epsilon:
                                      lr: 4e-05
0.18233722000884467
                       steps: 468
                                                    evaluation reward: 4.27
episode: 2292
                score: 6.0
                             memory length: 513299
                                                       epsilon:
0.18166600000884042
                       steps: 339
                                      lr: 4e-05
                                                    evaluation reward: 4.31
                score: 6.0
episode: 2293
                             memory length: 513624
                                                       epsilon:
0.18102250000883635
                       steps: 325
                                      lr: 4e-05
                                                    evaluation reward: 4.32
episode: 2294
                score: 3.0
                             memory length: 513855
                                                       epsilon:
0.18056512000883346
                       steps: 231
                                      lr: 4e-05
                                                    evaluation reward: 4.32
episode: 2295
                score: 4.0
                              memory length: 514113
                                                       epsilon:
0.18005428000883023
                       steps: 258
                                      lr: 4e-05
                                                    evaluation reward: 4.32
episode: 2296
                score: 2.0
                             memory length: 514294
                                                       epsilon:
0.17969590000882796
                                                    evaluation reward: 4.31
                       steps: 181
                                      lr: 4e-05
episode: 2297
                score: 6.0
                             memory length: 514629
                                                       epsilon:
0.17903260000882376
                       steps: 335
                                      lr: 4e-05
                                                    evaluation reward: 4.33
                score: 5.0
episode: 2298
                             memory length: 514919
                                                       epsilon:
                       steps: 290
0.17845840000882013
                                      lr: 4e-05
                                                    evaluation reward: 4.3
episode: 2299
                score: 4.0
                             memory length: 515162
                                                       epsilon:
0.17797726000881708
                       steps: 243
                                      lr: 4e-05
                                                    evaluation reward: 4.3
episode: 2300
                score: 4.0
                             memory length: 515419
                                                       epsilon:
                                                    evaluation reward: 4.31
0.17746840000881386
                       steps: 257
                                      lr: 4e-05
episode: 2301
                score: 5.0
                             memory length: 515708
                                                       epsilon:
0.17689618000881024
                       steps: 289
                                      lr: 4e-05
                                                    evaluation reward: 4.32
                score: 2.0
episode: 2302
                              memory length: 515889
                                                       epsilon:
0.17653780000880798
                                      lr: 4e-05
                       steps: 181
                                                    evaluation reward: 4.32
                                                       epsilon: 0.1761774400088057
episode: 2303
                score: 2.0
                             memory length: 516071
steps: 182
              lr: 4e-05
                             evaluation reward: 4.32
episode: 2304
                score: 8.0
                             memory length: 516467
                                                       epsilon:
0.17539336000880074
                       steps: 396
                                      lr: 4e-05
                                                    evaluation reward: 4.37
episode: 2305
                score: 4.0
                             memory length: 516743
                                                       epsilon:
```

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steps: 276
                                                    evaluation reward: 4.37
0.17484688000879728
                                      lr: 4e-05
                                                       epsilon: 0.174488500008795
episode: 2306
                score: 2.0
                             memory length: 516924
steps: 181
              lr: 4e-05
                             evaluation reward: 4.34
episode: 2307
                score: 4.0
                              memory length: 517183
                                                       epsilon:
                       steps: 259
0.17397568000879177
                                      lr: 4e-05
                                                    evaluation reward: 4.33
                score: 5.0
episode: 2308
                             memory length: 517473
                                                       epsilon:
0.17340148000878813
                       steps: 290
                                      lr: 4e-05
                                                    evaluation reward: 4.32
                score: 5.0
episode: 2309
                             memory length: 517779
                                                       epsilon: 0.1727956000087843
steps: 306
              lr: 4e-05
                             evaluation reward: 4.34
episode: 2310
                score: 4.0
                             memory length: 518040
                                                       epsilon:
0.17227882000878103
                                      lr: 4e-05
                                                    evaluation reward: 4.35
                       steps: 261
episode: 2311
                score: 6.0
                             memory length: 518385
                                                       epsilon: 0.1715957200087767
                             evaluation reward: 4.34
steps: 345
              lr: 4e-05
                                                       epsilon: 0.1709918200087729
episode: 2312
                score: 6.0
                              memory length: 518690
steps: 305
              lr: 4e-05
                             evaluation reward: 4.38
                             memory length: 518900
episode: 2313
                score: 3.0
                                                       epsilon:
0.17057602000877026
                       steps: 210
                                      lr: 4e-05
                                                    evaluation reward: 4.39
                                                       epsilon: 0.170219620008768
episode: 2314
                score: 2.0
                             memory length: 519080
              lr: 4e-05
                             evaluation reward: 4.37
steps: 180
                             memory length: 519385
episode: 2315
                score: 6.0
                                                       epsilon:
0.16961572000876418
                       steps: 305
                                      lr: 4e-05
                                                    evaluation reward: 4.39
                                                       epsilon: 0.1687326400087586
episode: 2316
                score: 9.0
                              memory length: 519831
steps: 446
              lr: 4e-05
                             evaluation reward: 4.42
                                                       epsilon:
episode: 2317
                score: 2.0
                             memory length: 520012
0.16837426000875633
                                      lr: 4e-05
                                                    evaluation reward: 4.38
                       steps: 181
                score: 4.0
                              memory length: 520255
episode: 2318
                                                       epsilon:
                       steps: 243
0.16789312000875328
                                      lr: 4e-05
                                                    evaluation reward: 4.4
episode: 2319
                score: 5.0
                              memory length: 520562
                                                       epsilon:
0.16728526000874944
                       steps: 307
                                      lr: 4e-05
                                                    evaluation reward: 4.41
episode: 2320
                score: 6.0
                              memory length: 520920
                                                       epsilon:
                       steps: 358
                                                    evaluation reward: 4.44
0.16657642000874495
                                      1r: 4e-05
episode: 2321
                score: 4.0
                             memory length: 521196
                                                       epsilon: 0.1660299400087415
steps: 276
              lr: 4e-05
                             evaluation reward: 4.46
episode: 2322
                score: 5.0
                             memory length: 521506
                                                       epsilon: 0.1654161400087376
                             evaluation reward: 4.47
steps: 310
              lr: 4e-05
                             memory length: 521890
                                                       epsilon: 0.1646558200087328
episode: 2323
                score: 7.0
steps: 384
              lr: 4e-05
                             evaluation reward: 4.46
                             memory length: 522149
episode: 2324
                score: 4.0
                                                       epsilon:
                                                    evaluation reward: 4.47
0.16414300000872956
                       steps: 259
                                      lr: 4e-05
episode: 2325
                score: 2.0
                             memory length: 522330
                                                       epsilon: 0.1637846200087273
                             evaluation reward: 4.46
steps: 181
              lr: 4e-05
                              memory length: 522755
                                                       epsilon:
episode: 2326
                score: 8.0
0.16294312000872196
                       steps: 425
                                      lr: 4e-05
                                                    evaluation reward: 4.48
episode: 2327
                score: 6.0
                             memory length: 523097
                                                       epsilon:
0.16226596000871768
                       steps: 342
                                      lr: 4e-05
                                                    evaluation reward: 4.5
episode: 2328
                score: 7.0
                              memory length: 523488
                                                       epsilon:
0.16149178000871278
                       steps: 391
                                      lr: 4e-05
                                                    evaluation reward: 4.53
                             memory length: 523784
episode: 2329
                score: 5.0
                                                       epsilon:
```

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0.16090570000870907
                       steps: 296
                                      lr: 4e-05
                                                    evaluation reward: 4.53
episode: 2330
                score: 5.0
                             memory length: 524080
                                                      epsilon:
                       steps: 296
0.16031962000870537
                                      lr: 4e-05
                                                    evaluation reward: 4.56
                score: 2.0
                                                      epsilon: 0.1599612400087031
episode: 2331
                             memory length: 524261
steps: 181
              lr: 4e-05
                            evaluation reward: 4.54
                              memory length: 524787
episode: 2332
                score: 12.0
                                                       epsilon:
0.1589197600086965
                      steps: 526
                                     lr: 4e-05
                                                   evaluation reward: 4.62
                score: 2.0
episode: 2333
                             memory length: 524966
                                                      epsilon:
                       steps: 179
                                                    evaluation reward: 4.6
0.15856534000869427
                                      lr: 4e-05
                score: 4.0
                                                      epsilon:
episode: 2334
                             memory length: 525244
0.15801490000869078
                       steps: 278
                                      lr: 4e-05
                                                    evaluation reward: 4.58
episode: 2335
                score: 5.0
                             memory length: 525540
                                                      epsilon:
0.15742882000868708
                       steps: 296
                                      lr: 4e-05
                                                    evaluation reward: 4.61
episode: 2336
                score: 5.0
                             memory length: 525831
                                                      epsilon:
0.15685264000868343
                       steps: 291
                                      lr: 4e-05
                                                    evaluation reward: 4.63
                score: 3.0
                                                      epsilon: 0.1563576400086803
episode: 2337
                             memory length: 526081
steps: 250
              lr: 4e-05
                            evaluation reward: 4.61
episode: 2338
                score: 5.0
                                                      epsilon: 0.1557418600086764
                             memory length: 526392
steps: 311
              lr: 4e-05
                            evaluation reward: 4.64
episode: 2339
                             memory length: 526673
                score: 4.0
                                                      epsilon:
                                                    evaluation reward: 4.62
0.15518548000867288
                       steps: 281
                                      lr: 4e-05
                                                      epsilon: 0.1546687000086696
episode: 2340
                score: 4.0
                             memory length: 526934
steps: 261
              lr: 4e-05
                            evaluation reward: 4.58
                                                      epsilon:
episode: 2341
                score: 2.0
                             memory length: 527115
0.15431032000866735
                                      lr: 4e-05
                                                    evaluation reward: 4.55
                       steps: 181
                score: 6.0
                             memory length: 527432
episode: 2342
                                                      epsilon:
                       steps: 317
0.15368266000866337
                                      lr: 4e-05
                                                    evaluation reward: 4.56
episode: 2343
                score: 2.0
                             memory length: 527613
                                                      epsilon: 0.1533242800086611
steps: 181
              lr: 4e-05
                             evaluation reward: 4.54
episode: 2344
                score: 4.0
                             memory length: 527892
                                                      epsilon: 0.1527718600086576
steps: 279
              lr: 4e-05
                            evaluation reward: 4.52
episode: 2345
                score: 7.0
                             memory length: 528254
                                                      epsilon:
0.15205510000865308
                       steps: 362
                                      lr: 4e-05
                                                    evaluation reward: 4.53
                score: 3.0
episode: 2346
                             memory length: 528479
                                                      epsilon:
                       steps: 225
0.15160960000865026
                                      lr: 4e-05
                                                    evaluation reward: 4.51
                score: 4.0
episode: 2347
                             memory length: 528755
                                                      epsilon: 0.1510631200086468
steps: 276
              lr: 4e-05
                            evaluation reward: 4.5
episode: 2348
                             memory length: 528967
                score: 3.0
                                                      epsilon:
                                                    evaluation reward: 4.5
0.15064336000864414
                       steps: 212
                                      lr: 4e-05
episode: 2349
                score: 8.0
                             memory length: 529364
                                                      epsilon:
0.14985730000863917
                       steps: 397
                                      lr: 4e-05
                                                    evaluation reward: 4.52
                             memory length: 529644
episode: 2350
                score: 5.0
                                                      epsilon:
0.14930290000863566
                       steps: 280
                                      lr: 4e-05
                                                    evaluation reward: 4.53
                                                      epsilon: 0.1489445200086334
episode: 2351
                score: 2.0
                             memory length: 529825
steps: 181
              lr: 4e-05
                            evaluation reward: 4.52
episode: 2352
                score: 6.0
                             memory length: 530138
                                                      epsilon:
0.14832478000862948
                       steps: 313
                                      lr: 4e-05
                                                    evaluation reward: 4.54
episode: 2353
                score: 5.0
                             memory length: 530431
                                                      epsilon: 0.1477446400086258
```

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steps: 293
              lr: 4e-05
                            evaluation reward: 4.55
episode: 2354
                score: 4.0
                             memory length: 530672
                                                      epsilon:
                       steps: 241
0.14726746000862279
                                      lr: 4e-05
                                                    evaluation reward: 4.57
episode: 2355
                score: 5.0
                             memory length: 530980
                                                      epsilon:
                       steps: 308
0.14665762000861893
                                      lr: 4e-05
                                                    evaluation reward: 4.52
episode: 2356
                score: 4.0
                             memory length: 531258
                                                      epsilon:
0.14610718000861544
                       steps: 278
                                      lr: 4e-05
                                                    evaluation reward: 4.54
episode: 2357
                score: 4.0
                             memory length: 531521
                                                      epsilon:
0.14558644000861215
                       steps: 263
                                      lr: 4e-05
                                                    evaluation reward: 4.52
                                                      epsilon:
episode: 2358
                score: 4.0
                             memory length: 531782
0.14506966000860888
                       steps: 261
                                      lr: 4e-05
                                                    evaluation reward: 4.53
                score: 4.0
                                                      epsilon: 0.1445528800086056
episode: 2359
                             memory length: 532043
                            evaluation reward: 4.52
steps: 261
              lr: 4e-05
episode: 2360
                score: 5.0
                             memory length: 532366
                                                      epsilon:
0.14391334000860156
                       steps: 323
                                      lr: 4e-05
                                                    evaluation reward: 4.51
episode: 2361
                score: 6.0
                             memory length: 532708
                                                      epsilon:
0.14323618000859728
                       steps: 342
                                      lr: 4e-05
                                                    evaluation reward: 4.5
episode: 2362
                score: 4.0
                             memory length: 532984
                                                      epsilon:
0.14268970000859382
                                      lr: 4e-05
                       steps: 276
                                                    evaluation reward: 4.5
episode: 2363
                score: 2.0
                             memory length: 533165
                                                      epsilon:
0.14233132000859156
                       steps: 181
                                      lr: 4e-05
                                                    evaluation reward: 4.49
                                                      epsilon: 0.1419729400085893
episode: 2364
                score: 2.0
                             memory length: 533346
steps: 181
              lr: 4e-05
                            evaluation reward: 4.46
                                                      epsilon: 0.141295780008585
episode: 2365
                score: 6.0
                             memory length: 533688
steps: 342
              lr: 4e-05
                            evaluation reward: 4.48
episode: 2366
                score: 6.0
                             memory length: 534044
                                                      epsilon:
0.14059090000858054
                                      lr: 4e-05
                       steps: 356
                                                    evaluation reward: 4.49
episode: 2367
                score: 6.0
                             memory length: 534371
                                                      epsilon:
0.13994344000857645
                       steps: 327
                                      lr: 4e-05
                                                    evaluation reward: 4.53
episode: 2368
                score: 6.0
                             memory length: 534713
                                                      epsilon:
0.13926628000857216
                       steps: 342
                                                    evaluation reward: 4.55
                                      lr: 4e-05
episode: 2369
                score: 8.0
                             memory length: 535134
                                                      epsilon: 0.1384327000085669
steps: 421
              lr: 4e-05
                            evaluation reward: 4.58
episode: 2370
                score: 7.0
                             memory length: 535487
                                                      epsilon:
                       steps: 353
                                      lr: 4e-05
0.13773376000856247
                                                    evaluation reward: 4.62
episode: 2371
                score: 3.0
                             memory length: 535696
                                                      epsilon:
0.13731994000855985
                       steps: 209
                                      lr: 4e-05
                                                    evaluation reward: 4.61
                score: 2.0
                             memory length: 535877
episode: 2372
                                                      epsilon:
                                                    evaluation reward: 4.61
0.13696156000855758
                       steps: 181
                                      lr: 4e-05
episode: 2373
                score: 3.0
                             memory length: 536105
                                                      epsilon:
                       steps: 228
                                                    evaluation reward: 4.62
0.13651012000855473
                                      lr: 4e-05
                             memory length: 536362
                                                      epsilon: 0.1360012600085515
episode: 2374
                score: 4.0
              lr: 4e-05
                            evaluation reward: 4.64
steps: 257
episode: 2375
                score: 6.0
                             memory length: 536704
                                                      epsilon:
0.13532410000854722
                       steps: 342
                                      lr: 4e-05
                                                    evaluation reward: 4.67
episode: 2376
                score: 2.0
                             memory length: 536883
                                                      epsilon:
0.13496968000854498
                       steps: 179
                                      lr: 4e-05
                                                    evaluation reward: 4.64
                score: 5.0
                             memory length: 537158
episode: 2377
                                                      epsilon:
```

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steps: 275
                                      lr: 4e-05
                                                    evaluation reward: 4.67
0.13442518000854153
episode: 2378
                score: 4.0
                             memory length: 537455
                                                      epsilon: 0.1338371200085378
steps: 297
              lr: 4e-05
                            evaluation reward: 4.68
episode: 2379
                score: 2.0
                             memory length: 537653
                                                      epsilon:
0.13344508000853533
                       steps: 198
                                      lr: 4e-05
                                                    evaluation reward: 4.67
                score: 5.0
                                                      epsilon: 0.1328570200085316
episode: 2380
                             memory length: 537950
steps: 297
              lr: 4e-05
                            evaluation reward: 4.65
episode: 2381
                score: 3.0
                             memory length: 538178
                                                      epsilon:
0.13240558000852876
                       steps: 228
                                      lr: 4e-05
                                                    evaluation reward: 4.62
                score: 4.0
episode: 2382
                             memory length: 538437
                                                      epsilon: 0.1318927600085255
steps: 259
              lr: 4e-05
                            evaluation reward: 4.61
episode: 2383
                score: 2.0
                             memory length: 538635
                                                      epsilon:
0.13150072000852303
                       steps: 198
                                      lr: 4e-05
                                                    evaluation reward: 4.61
episode: 2384
                score: 2.0
                             memory length: 538816
                                                      epsilon:
0.13114234000852076
                       steps: 181
                                      lr: 4e-05
                                                    evaluation reward: 4.55
                score: 5.0
                                                      epsilon: 0.1305008200085167
episode: 2385
                             memory length: 539140
steps: 324
              lr: 4e-05
                            evaluation reward: 4.55
episode: 2386
                                                      epsilon:
                score: 4.0
                             memory length: 539418
0.12995038000851322
                                                    evaluation reward: 4.53
                       steps: 278
                                      lr: 4e-05
episode: 2387
                score: 5.0
                             memory length: 539698
                                                      epsilon:
0.12939598000850971
                                      lr: 4e-05
                       steps: 280
                                                    evaluation reward: 4.54
                                                      epsilon: 0.1288891000085065
episode: 2388
                score: 4.0
                             memory length: 539954
steps: 256
              lr: 4e-05
                            evaluation reward: 4.51
                                                      epsilon:
episode: 2389
                score: 6.0
                             memory length: 540296
0.12821194000850222
                       steps: 342
                                      lr: 4e-05
                                                    evaluation reward: 4.53
                score: 5.0
                             memory length: 540576
episode: 2390
                                                      epsilon:
                       steps: 280
0.12765754000849872
                                      lr: 4e-05
                                                    evaluation reward: 4.54
episode: 2391
                score: 2.0
                             memory length: 540757
                                                      epsilon:
0.12729916000849645
                       steps: 181
                                      lr: 4e-05
                                                    evaluation reward: 4.47
episode: 2392
                score: 2.0
                             memory length: 540938
                                                      epsilon:
0.12694078000849418
                                                    evaluation reward: 4.43
                       steps: 181
                                      lr: 4e-05
episode: 2393
                score: 4.0
                             memory length: 541200
                                                      epsilon: 0.1264220200084909
steps: 262
              lr: 4e-05
                            evaluation reward: 4.41
episode: 2394
                score: 6.0
                             memory length: 541542
                                                      epsilon:
                       steps: 342
                                      lr: 4e-05
0.12574486000848661
                                                    evaluation reward: 4.44
                score: 4.0
episode: 2395
                             memory length: 541822
                                                      epsilon: 0.1251904600084831
steps: 280
              lr: 4e-05
                            evaluation reward: 4.44
episode: 2396
                             memory length: 542164
                score: 6.0
                                                      epsilon:
                                                    evaluation reward: 4.48
0.12451330000848224
                       steps: 342
                                      lr: 4e-05
episode: 2397
                score: 4.0
                             memory length: 542420
                                                      epsilon:
0.12400642000848258
                       steps: 256
                                      lr: 4e-05
                                                    evaluation reward: 4.46
                             memory length: 542701
episode: 2398
                score: 5.0
                                                      epsilon:
0.12345004000848296
                       steps: 281
                                      lr: 4e-05
                                                    evaluation reward: 4.46
                                                      epsilon: 0.1225095400084836
episode: 2399
                score: 9.0
                             memory length: 543176
steps: 475
              lr: 4e-05
                            evaluation reward: 4.51
episode: 2400
                score: 4.0
                             memory length: 543414
                                                      epsilon:
0.12203830000848392
                       steps: 238
                                      lr: 4e-05
                                                    evaluation reward: 4.51
episode: 2401
                score: 5.0
                             memory length: 543704
                                                      epsilon:
```

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0.12146410000848432
                       steps: 290
                                      lr: 4e-05
                                                    evaluation reward: 4.51
episode: 2402
                score: 5.0
                             memory length: 544012
                                                      epsilon:
                       steps: 308
0.12085426000848473
                                      lr: 4e-05
                                                    evaluation reward: 4.54
                score: 2.0
episode: 2403
                             memory length: 544193
                                                      epsilon:
                       steps: 181
0.12049588000848498
                                      lr: 4e-05
                                                    evaluation reward: 4.54
episode: 2404
                score: 2.0
                             memory length: 544374
                                                      epsilon:
0.12013750000848522
                       steps: 181
                                      lr: 4e-05
                                                    evaluation reward: 4.48
episode: 2405
                score: 2.0
                             memory length: 544555
                                                      epsilon:
0.11977912000848547
                       steps: 181
                                      lr: 4e-05
                                                    evaluation reward: 4.46
                                                      epsilon:
episode: 2406
                score: 2.0
                             memory length: 544736
0.11942074000848571
                                                    evaluation reward: 4.46
                       steps: 181
                                      lr: 4e-05
episode: 2407
                score: 7.0
                             memory length: 545127
                                                      epsilon:
0.11864656000848624
                                      lr: 4e-05
                                                    evaluation reward: 4.49
                       steps: 391
episode: 2408
                score: 6.0
                             memory length: 545454
                                                      epsilon:
0.11799910000848668
                       steps: 327
                                      lr: 4e-05
                                                    evaluation reward: 4.5
episode: 2409
                score: 5.0
                             memory length: 545800
                                                      epsilon:
0.11731402000848715
                       steps: 346
                                      lr: 4e-05
                                                    evaluation reward: 4.5
                score: 2.0
episode: 2410
                             memory length: 545981
                                                      epsilon:
                                      lr: 4e-05
0.11695564000848739
                       steps: 181
                                                    evaluation reward: 4.48
episode: 2411
                score: 4.0
                             memory length: 546257
                                                      epsilon:
0.11640916000848776
                       steps: 276
                                      lr: 4e-05
                                                    evaluation reward: 4.46
episode: 2412
                score: 3.0
                             memory length: 546506
                                                      epsilon: 0.1159161400084881
steps: 249
              lr: 4e-05
                             evaluation reward: 4.43
                                                      epsilon:
episode: 2413
                score: 2.0
                             memory length: 546688
0.11555578000848835
                       steps: 182
                                                    evaluation reward: 4.42
                                      lr: 4e-05
                score: 6.0
                             memory length: 547033
episode: 2414
                                                      epsilon:
0.11487268000848881
                       steps: 345
                                      lr: 4e-05
                                                    evaluation reward: 4.46
episode: 2415
                score: 7.0
                             memory length: 547409
                                                      epsilon:
0.11412820000848932
                       steps: 376
                                      lr: 4e-05
                                                    evaluation reward: 4.47
episode: 2416
                score: 7.0
                             memory length: 547834
                                                      epsilon: 0.1132867000084899
              lr: 4e-05
steps: 425
                             evaluation reward: 4.45
episode: 2417
                score: 4.0
                             memory length: 548108
                                                      epsilon:
                                                    evaluation reward: 4.47
0.11274418000849026
                       steps: 274
                                      lr: 4e-05
                score: 3.0
episode: 2418
                             memory length: 548337
                                                      epsilon:
                       steps: 229
0.11229076000849057
                                      lr: 4e-05
                                                    evaluation reward: 4.46
episode: 2419
                score: 2.0
                             memory length: 548518
                                                      epsilon:
0.11193238000849082
                       steps: 181
                                      lr: 4e-05
                                                    evaluation reward: 4.43
                score: 2.0
                             memory length: 548699
episode: 2420
                                                      epsilon:
                                                    evaluation reward: 4.39
0.11157400000849106
                       steps: 181
                                      lr: 4e-05
episode: 2421
                score: 5.0
                             memory length: 549008
                                                      epsilon:
0.11096218000849148
                       steps: 309
                                      lr: 4e-05
                                                    evaluation reward: 4.4
                                                      epsilon:
episode: 2422
                score: 4.0
                             memory length: 549286
0.11041174000849185
                                      lr: 4e-05
                                                    evaluation reward: 4.39
                       steps: 278
episode: 2423
                score: 3.0
                             memory length: 549514
                                                      epsilon:
0.10996030000849216
                       steps: 228
                                      lr: 4e-05
                                                    evaluation reward: 4.35
episode: 2424
                score: 4.0
                             memory length: 549757
                                                      epsilon:
0.10947916000849249
                       steps: 243
                                      lr: 4e-05
                                                    evaluation reward: 4.35
episode: 2425
                             memory length: 550131
                                                      epsilon: 0.108738640008493
                score: 7.0
```

```
lr: 4e-05
steps: 374
                             evaluation reward: 4.4
episode: 2426
                score: 2.0
                             memory length: 550312
                                                      epsilon:
0.10838026000849324
                                      lr: 4e-05
                                                    evaluation reward: 4.34
                       steps: 181
episode: 2427
                score: 8.0
                             memory length: 550719
                                                      epsilon:
                       steps: 407
0.10757440000849379
                                      lr: 4e-05
                                                    evaluation reward: 4.36
                score: 4.0
episode: 2428
                             memory length: 550995
                                                      epsilon:
0.10702792000849416
                       steps: 276
                                      lr: 4e-05
                                                    evaluation reward: 4.33
episode: 2429
                score: 5.0
                             memory length: 551275
                                                      epsilon:
0.10647352000849454
                       steps: 280
                                      lr: 4e-05
                                                    evaluation reward: 4.33
                                                      epsilon:
episode: 2430
                score: 3.0
                             memory length: 551485
0.10605772000849482
                                      lr: 4e-05
                       steps: 210
                                                    evaluation reward: 4.31
episode: 2431
                score: 6.0
                              memory length: 551810
                                                      epsilon:
0.10541422000849526
                       steps: 325
                                      lr: 4e-05
                                                    evaluation reward: 4.35
episode: 2432
                score: 2.0
                             memory length: 551991
                                                      epsilon:
0.10505584000849551
                       steps: 181
                                      lr: 4e-05
                                                    evaluation reward: 4.25
episode: 2433
                score: 2.0
                             memory length: 552172
                                                      epsilon:
0.10469746000849575
                       steps: 181
                                      lr: 4e-05
                                                    evaluation reward: 4.25
                score: 3.0
episode: 2434
                             memory length: 552401
                                                      epsilon:
0.10424404000849606
                       steps: 229
                                      lr: 4e-05
                                                    evaluation reward: 4.24
episode: 2435
                score: 4.0
                             memory length: 552675
                                                      epsilon:
0.10370152000849643
                       steps: 274
                                      lr: 4e-05
                                                    evaluation reward: 4.23
episode: 2436
                score: 7.0
                             memory length: 553032
                                                      epsilon:
0.10299466000849691
                       steps: 357
                                      lr: 4e-05
                                                    evaluation reward: 4.25
                score: 4.0
episode: 2437
                             memory length: 553292
                                                      epsilon:
0.10247986000849726
                       steps: 260
                                      lr: 4e-05
                                                    evaluation reward: 4.26
                score: 2.0
                             memory length: 553473
episode: 2438
                                                      epsilon:
                       steps: 181
0.10212148000849751
                                      lr: 4e-05
                                                    evaluation reward: 4.23
episode: 2439
                score: 4.0
                              memory length: 553731
                                                      epsilon:
0.10161064000849786
                       steps: 258
                                      lr: 4e-05
                                                    evaluation reward: 4.23
episode: 2440
                score: 5.0
                             memory length: 554057
                                                      epsilon: 0.1009651600084983
steps: 326
              lr: 4e-05
                             evaluation reward: 4.24
episode: 2441
                score: 5.0
                             memory length: 554361
                                                      epsilon:
0.10036324000849871
                       steps: 304
                                      lr: 4e-05
                                                    evaluation reward: 4.27
                score: 4.0
episode: 2442
                             memory length: 554639
                                                      epsilon:
                       steps: 278
0.09981280000849908
                                      lr: 4e-05
                                                    evaluation reward: 4.25
episode: 2443
                score: 6.0
                             memory length: 554981
                                                      epsilon:
0.09913564000849955
                       steps: 342
                                      lr: 4e-05
                                                    evaluation reward: 4.29
                score: 4.0
                             memory length: 555239
                                                      epsilon: 0.0986248000084999
episode: 2444
steps: 258
              lr: 4e-05
                             evaluation reward: 4.29
episode: 2445
                score: 3.0
                             memory length: 555469
                                                      epsilon: 0.0981694000085002
steps: 230
              lr: 4e-05
                             evaluation reward: 4.25
episode: 2446
                             memory length: 555873
                                                      epsilon:
                score: 8.0
0.09736948000850075
                       steps: 404
                                      lr: 4e-05
                                                    evaluation reward: 4.3
episode: 2447
                score: 4.0
                             memory length: 556149
                                                      epsilon:
0.09682300000850112
                       steps: 276
                                      lr: 4e-05
                                                    evaluation reward: 4.3
episode: 2448
                score: 8.0
                             memory length: 556544
                                                      epsilon:
0.09604090000850166
                       steps: 395
                                      lr: 4e-05
                                                    evaluation reward: 4.35
episode: 2449
                score: 4.0
                             memory length: 556822
                                                      epsilon:
```

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evaluation reward: 4.31
0.09549046000850203
                                      lr: 4e-05
                       steps: 278
episode: 2450
                score: 6.0
                             memory length: 557196
                                                       epsilon:
                       steps: 374
0.09474994000850254
                                      lr: 4e-05
                                                     evaluation reward: 4.32
                score: 11.0
                               memory length: 557690
episode: 2451
                                                        epsilon:
0.0937718200085032
                      steps: 494
                                     lr: 4e-05
                                                   evaluation reward: 4.41
                score: 2.0
episode: 2452
                             memory length: 557870
                                                       epsilon:
0.09341542000850345
                       steps: 180
                                      lr: 4e-05
                                                     evaluation reward: 4.37
episode: 2453
                score: 6.0
                             memory length: 558216
                                                       epsilon:
0.09273034000850391
                       steps: 346
                                      lr: 4e-05
                                                    evaluation reward: 4.38
episode: 2454
                score: 2.0
                             memory length: 558397
                                                       epsilon:
0.09237196000850416
                                      lr: 4e-05
                                                     evaluation reward: 4.36
                       steps: 181
                                                       epsilon: 0.0915740200085047
episode: 2455
                score: 7.0
                             memory length: 558800
                             evaluation reward: 4.38
steps: 403
              lr: 4e-05
                                                       epsilon:
episode: 2456
                score: 5.0
                              memory length: 559125
0.09093052000850514
                       steps: 325
                                      lr: 4e-05
                                                     evaluation reward: 4.39
episode: 2457
                score: 8.0
                             memory length: 559524
                                                       epsilon:
0.09014050000850568
                       steps: 399
                                      lr: 4e-05
                                                     evaluation reward: 4.43
                score: 3.0
episode: 2458
                             memory length: 559736
                                                       epsilon:
0.08972074000850597
                                                     evaluation reward: 4.42
                       steps: 212
                                      lr: 4e-05
episode: 2459
                score: 3.0
                             memory length: 559965
                                                       epsilon:
0.08926732000850628
                       steps: 229
                                      lr: 4e-05
                                                     evaluation reward: 4.41
episode: 2460
                score: 2.0
                             memory length: 560146
                                                       epsilon:
0.08890894000850652
                       steps: 181
                                      lr: 4e-05
                                                    evaluation reward: 4.38
                score: 6.0
                                                       epsilon:
episode: 2461
                             memory length: 560473
0.08826148000850696
                       steps: 327
                                                     evaluation reward: 4.38
                                      lr: 4e-05
                score: 4.0
                             memory length: 560734
episode: 2462
                                                       epsilon:
0.08774470000850731
                       steps: 261
                                      lr: 4e-05
                                                     evaluation reward: 4.38
episode: 2463
                score: 5.0
                              memory length: 561044
                                                       epsilon:
0.08713090000850773
                       steps: 310
                                      lr: 4e-05
                                                     evaluation reward: 4.41
episode: 2464
                score: 3.0
                             memory length: 561251
                                                       epsilon:
0.08672104000850801
                       steps: 207
                                      lr: 4e-05
                                                     evaluation reward: 4.42
episode: 2465
                score: 7.0
                             memory length: 561643
                                                       epsilon:
0.08594488000850854
                       steps: 392
                                      lr: 4e-05
                                                     evaluation reward: 4.43
                score: 2.0
episode: 2466
                             memory length: 561840
                                                       epsilon:
0.08555482000850881
                       steps: 197
                                      lr: 4e-05
                                                     evaluation reward: 4.39
episode: 2467
                score: 3.0
                             memory length: 562068
                                                       epsilon:
0.08510338000850912
                       steps: 228
                                      lr: 4e-05
                                                     evaluation reward: 4.36
                score: 2.0
                             memory length: 562249
episode: 2468
                                                       epsilon:
0.08474500000850936
                       steps: 181
                                      lr: 4e-05
                                                     evaluation reward: 4.32
episode: 2469
                score: 3.0
                             memory length: 562479
                                                       epsilon:
0.08428960000850967
                       steps: 230
                                      lr: 4e-05
                                                     evaluation reward: 4.27
                                                       epsilon:
episode: 2470
                score: 5.0
                              memory length: 562825
0.08360452000851014
                                                     evaluation reward: 4.25
                       steps: 346
                                      lr: 4e-05
episode: 2471
                score: 4.0
                             memory length: 563084
                                                       epsilon:
0.08309170000851049
                       steps: 259
                                      lr: 4e-05
                                                     evaluation reward: 4.26
episode: 2472
                score: 10.0
                               memory length: 563546
                                                        epsilon:
0.08217694000851111
                       steps: 462
                                      lr: 4e-05
                                                     evaluation reward: 4.34
                score: 4.0
                             memory length: 563820
episode: 2473
                                                       epsilon:
```

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0.08163442000851148
                                      lr: 4e-05
                                                     evaluation reward: 4.35
                       steps: 274
episode: 2474
                score: 2.0
                             memory length: 564001
                                                       epsilon:
0.08127604000851173
                       steps: 181
                                      lr: 4e-05
                                                     evaluation reward: 4.33
episode: 2475
                score: 2.0
                              memory length: 564198
                                                       epsilon:
                       steps: 197
0.08088598000851199
                                      lr: 4e-05
                                                     evaluation reward: 4.29
episode: 2476
                score: 2.0
                             memory length: 564379
                                                       epsilon:
0.08052760000851224
                       steps: 181
                                      lr: 4e-05
                                                     evaluation reward: 4.29
episode: 2477
                score: 7.0
                             memory length: 564757
                                                       epsilon:
0.07977916000851275
                       steps: 378
                                      lr: 4e-05
                                                    evaluation reward: 4.31
                                                       epsilon:
episode: 2478
                score: 3.0
                             memory length: 564988
0.07932178000851306
                       steps: 231
                                      lr: 4e-05
                                                     evaluation reward: 4.3
episode: 2479
                score: 7.0
                              memory length: 565364
                                                       epsilon:
0.07857730000851357
                                      lr: 4e-05
                       steps: 376
                                                     evaluation reward: 4.35
episode: 2480
                score: 5.0
                              memory length: 565636
                                                       epsilon:
0.07803874000851393
                       steps: 272
                                      lr: 4e-05
                                                     evaluation reward: 4.35
episode: 2481
                score: 2.0
                             memory length: 565817
                                                       epsilon:
0.07768036000851418
                       steps: 181
                                      lr: 4e-05
                                                     evaluation reward: 4.34
                score: 5.0
episode: 2482
                             memory length: 566108
                                                       epsilon:
                                      lr: 4e-05
                                                     evaluation reward: 4.35
0.07710418000851457
                       steps: 291
episode: 2483
                score: 2.0
                             memory length: 566305
                                                       epsilon:
0.07671412000851484
                       steps: 197
                                      lr: 4e-05
                                                     evaluation reward: 4.35
episode: 2484
                score: 2.0
                             memory length: 566486
                                                       epsilon:
0.07635574000851508
                       steps: 181
                                      lr: 4e-05
                                                     evaluation reward: 4.35
                score: 4.0
                                                       epsilon:
episode: 2485
                             memory length: 566764
0.07580530000851546
                       steps: 278
                                                     evaluation reward: 4.34
                                      lr: 4e-05
                score: 4.0
                             memory length: 567023
episode: 2486
                                                       epsilon:
                       steps: 259
0.07529248000851581
                                      lr: 4e-05
                                                     evaluation reward: 4.34
episode: 2487
                score: 4.0
                              memory length: 567266
                                                       epsilon:
0.07481134000851614
                       steps: 243
                                      lr: 4e-05
                                                     evaluation reward: 4.33
episode: 2488
                score: 2.0
                             memory length: 567447
                                                       epsilon:
0.07445296000851638
                       steps: 181
                                      lr: 4e-05
                                                     evaluation reward: 4.31
episode: 2489
                score: 8.0
                             memory length: 567838
                                                       epsilon:
0.07367878000851691
                       steps: 391
                                      lr: 4e-05
                                                     evaluation reward: 4.33
                score: 3.0
episode: 2490
                             memory length: 568067
                                                       epsilon:
0.07322536000851722
                       steps: 229
                                      lr: 4e-05
                                                     evaluation reward: 4.31
episode: 2491
                score: 4.0
                             memory length: 568326
                                                       epsilon:
0.07271254000851757
                       steps: 259
                                      lr: 4e-05
                                                     evaluation reward: 4.33
                score: 2.0
                             memory length: 568507
episode: 2492
                                                       epsilon:
0.07235416000851781
                       steps: 181
                                      lr: 4e-05
                                                     evaluation reward: 4.33
episode: 2493
                score: 3.0
                             memory length: 568738
                                                       epsilon:
0.07189678000851812
                       steps: 231
                                      lr: 4e-05
                                                    evaluation reward: 4.32
                             memory length: 569169
                                                       epsilon: 0.0710434000085187
episode: 2494
                score: 8.0
              lr: 4e-05
                             evaluation reward: 4.34
steps: 431
episode: 2495
                score: 5.0
                             memory length: 569449
                                                       epsilon:
0.07048900000851908
                       steps: 280
                                      lr: 4e-05
                                                     evaluation reward: 4.35
episode: 2496
                score: 7.0
                             memory length: 569807
                                                       epsilon:
0.06978016000851957
                       steps: 358
                                      lr: 4e-05
                                                     evaluation reward: 4.36
                score: 4.0
                             memory length: 570050
                                                       epsilon: 0.0692990200085199
episode: 2497
```

```
steps: 243
              lr: 4e-05
                            evaluation reward: 4.36
episode: 2498
                score: 2.0
                             memory length: 570231
                                                      epsilon:
0.06894064000852014
                                      lr: 4e-05
                                                    evaluation reward: 4.33
                       steps: 181
episode: 2499
                score: 4.0
                             memory length: 570490
                                                      epsilon:
                       steps: 259
0.06842782000852049
                                      lr: 4e-05
                                                    evaluation reward: 4.28
                                                      epsilon: 0.0679704400085208
episode: 2500
                score: 3.0
                             memory length: 570721
steps: 231
              lr: 4e-05
                            evaluation reward: 4.27
                score: 7.0
episode: 2501
                             memory length: 571097
                                                      epsilon:
0.06722596000852131
                       steps: 376
                                      lr: 4e-05
                                                    evaluation reward: 4.29
                                                      epsilon:
episode: 2502
                score: 2.0
                             memory length: 571278
0.06686758000852155
                                      lr: 4e-05
                                                    evaluation reward: 4.26
                       steps: 181
                                                      epsilon: 0.0665092000085218
episode: 2503
                score: 2.0
                             memory length: 571459
                            evaluation reward: 4.26
steps: 181
              lr: 4e-05
episode: 2504
                score: 7.0
                             memory length: 571863
                                                      epsilon:
0.06570928000852234
                       steps: 404
                                      lr: 4e-05
                                                    evaluation reward: 4.31
episode: 2505
                score: 5.0
                             memory length: 572143
                                                      epsilon:
0.06515488000852272
                       steps: 280
                                      lr: 4e-05
                                                    evaluation reward: 4.34
                score: 2.0
                             memory length: 572324
episode: 2506
                                                      epsilon:
0.06479650000852297
                                      lr: 4e-05
                                                    evaluation reward: 4.34
                       steps: 181
episode: 2507
                score: 4.0
                             memory length: 572567
                                                      epsilon: 0.0643153600085233
steps: 243
              lr: 4e-05
                            evaluation reward: 4.31
                             memory length: 572792
episode: 2508
                score: 3.0
                                                      epsilon: 0.0638698600085236
steps: 225
              lr: 4e-05
                            evaluation reward: 4.28
episode: 2509
                score: 6.0
                             memory length: 573134
                                                      epsilon:
0.06319270000852406
                       steps: 342
                                      lr: 4e-05
                                                    evaluation reward: 4.29
                score: 6.0
                             memory length: 573479
episode: 2510
                                                      epsilon:
                       steps: 345
0.06250960000852453
                                      lr: 4e-05
                                                    evaluation reward: 4.33
episode: 2511
                score: 5.0
                             memory length: 573773
                                                      epsilon:
0.061927480008524924
                        steps: 294
                                       lr: 4e-05
                                                     evaluation reward: 4.34
episode: 2512
                score: 4.0
                             memory length: 574047
                                                      epsilon:
                        steps: 274
                                                     evaluation reward: 4.35
0.061384960008525294
                                       lr: 4e-05
episode: 2513
                score: 5.0
                             memory length: 574337
                                                      epsilon:
0.060810760008525686
                        steps: 290
                                       lr: 4e-05
                                                     evaluation reward: 4.38
                                                      epsilon: 0.0602029000085261
episode: 2514
                score: 5.0
                             memory length: 574644
                            evaluation reward: 4.37
steps: 307
              lr: 4e-05
episode: 2515
                score: 7.0
                             memory length: 575032
                                                      epsilon:
0.059434660008526624
                        steps: 388
                                       lr: 4e-05
                                                     evaluation reward: 4.37
episode: 2516
                score: 4.0
                             memory length: 575293
                                                      epsilon:
                                                    evaluation reward: 4.34
0.05891788000852698
                       steps: 261
                                      lr: 4e-05
episode: 2517
                score: 5.0
                             memory length: 575616
                                                      epsilon:
0.05827834000852741
                       steps: 323
                                      lr: 4e-05
                                                    evaluation reward: 4.35
                                                      epsilon:
episode: 2518
                score: 2.0
                             memory length: 575795
0.057923920008527655
                                       lr: 4e-05
                                                     evaluation reward: 4.34
                        steps: 179
episode: 2519
                score: 3.0
                             memory length: 576026
                                                      epsilon:
0.057466540008527967
                        steps: 231
                                                     evaluation reward: 4.35
                                       lr: 4e-05
episode: 2520
                score: 6.0
                             memory length: 576324
                                                      epsilon:
0.05687650000852837
                       steps: 298
                                      lr: 4e-05
                                                    evaluation reward: 4.39
                             memory length: 576731
episode: 2521
                score: 7.0
                                                      epsilon:
```

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0.05607064000852892
                                                    evaluation reward: 4.41
                       steps: 407
                                      lr: 4e-05
episode: 2522
                score: 6.0
                             memory length: 577036
                                                       epsilon:
                       steps: 305
0.05546674000852933
                                      lr: 4e-05
                                                    evaluation reward: 4.43
                              memory length: 577292
episode: 2523
                score: 4.0
                                                       epsilon:
0.054959860008529676
                         steps: 256
                                       lr: 4e-05
                                                      evaluation reward: 4.44
episode: 2524
                score: 2.0
                             memory length: 577473
                                                       epsilon:
0.05460148000852992
                       steps: 181
                                      lr: 4e-05
                                                    evaluation reward: 4.42
episode: 2525
                score: 5.0
                             memory length: 577801
                                                       epsilon:
0.053952040008530364
                                                     evaluation reward: 4.4
                        steps: 328
                                       lr: 4e-05
                score: 4.0
                                                       epsilon:
episode: 2526
                             memory length: 578095
0.05336992000853076
                                                    evaluation reward: 4.42
                       steps: 294
                                      lr: 4e-05
episode: 2527
                score: 7.0
                              memory length: 578449
                                                       epsilon:
0.05266900000853124
                                      lr: 4e-05
                                                    evaluation reward: 4.41
                       steps: 354
episode: 2528
                score: 5.0
                              memory length: 578729
                                                       epsilon:
0.05211460000853162
                       steps: 280
                                      lr: 4e-05
                                                    evaluation reward: 4.42
episode: 2529
                score: 2.0
                             memory length: 578928
                                                       epsilon:
0.051720580008531886
                         steps: 199
                                       lr: 4e-05
                                                      evaluation reward: 4.39
                             memory length: 579107
                score: 2.0
episode: 2530
                                                       epsilon:
0.05136616000853213
                                      lr: 4e-05
                                                    evaluation reward: 4.38
                       steps: 179
episode: 2531
                score: 3.0
                             memory length: 579317
                                                       epsilon:
0.05095036000853241
                       steps: 210
                                      lr: 4e-05
                                                    evaluation reward: 4.35
episode: 2532
                score: 3.0
                             memory length: 579566
                                                       epsilon:
                       steps: 249
0.05045734000853275
                                      lr: 4e-05
                                                    evaluation reward: 4.36
                score: 3.0
episode: 2533
                             memory length: 579795
                                                       epsilon:
0.050003920008533057
                         steps: 229
                                       lr: 4e-05
                                                      evaluation reward: 4.37
episode: 2534
                score: 2.0
                             memory length: 579976
                                                       epsilon: 0.0496455400085333
steps: 181
              lr: 4e-05
                             evaluation reward: 4.36
episode: 2535
                score: 4.0
                              memory length: 580257
                                                       epsilon:
0.04908916000853368
                       steps: 281
                                      lr: 4e-05
                                                    evaluation reward: 4.36
episode: 2536
                score: 2.0
                             memory length: 580438
                                                       epsilon:
0.048730780008533925
                                                      evaluation reward: 4.31
                         steps: 181
                                       lr: 4e-05
episode: 2537
                score: 3.0
                             memory length: 580685
                                                       epsilon:
0.04824172000853426
                       steps: 247
                                      lr: 4e-05
                                                    evaluation reward: 4.3
                score: 4.0
episode: 2538
                             memory length: 580945
                                                       epsilon:
0.04772692000853461
                       steps: 260
                                      lr: 4e-05
                                                    evaluation reward: 4.32
episode: 2539
                score: 3.0
                             memory length: 581172
                                                       epsilon:
0.047277460008534916
                         steps: 227
                                       lr: 4e-05
                                                     evaluation reward: 4.31
episode: 2540
                score: 3.0
                             memory length: 581421
                                                       epsilon:
                                                    evaluation reward: 4.29
0.04678444000853525
                       steps: 249
                                      lr: 4e-05
                             memory length: 581668
episode: 2541
                score: 3.0
                                                       epsilon:
0.046295380008535586
                                                     evaluation reward: 4.27
                        steps: 247
                                       lr: 4e-05
                                                       epsilon:
episode: 2542
                score: 3.0
                              memory length: 581877
0.04588156000853587
                                      lr: 4e-05
                                                    evaluation reward: 4.26
                       steps: 209
episode: 2543
                score: 4.0
                             memory length: 582120
                                                       epsilon:
0.045400420008536196
                         steps: 243
                                       lr: 4e-05
                                                      evaluation reward: 4.24
episode: 2544
                score: 9.0
                             memory length: 582579
                                                       epsilon:
0.044491600008536816
                         steps: 459
                                       lr: 4e-05
                                                      evaluation reward: 4.29
episode: 2545
                score: 4.0
                             memory length: 582855
                                                       epsilon:
```

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0.04394512000853719
                       steps: 276
                                      lr: 4e-05
                                                     evaluation reward: 4.3
episode: 2546
                score: 3.0
                             memory length: 583086
                                                       epsilon: 0.0434877400085375
steps: 231
              lr: 4e-05
                             evaluation reward: 4.25
episode: 2547
                score: 2.0
                              memory length: 583267
                                                       epsilon:
                         steps: 181
0.043129360008537745
                                       lr: 4e-05
                                                      evaluation reward: 4.23
episode: 2548
                score: 3.0
                             memory length: 583495
                                                       epsilon:
0.04267792000853805
                       steps: 228
                                      lr: 4e-05
                                                     evaluation reward: 4.18
                score: 2.0
episode: 2549
                             memory length: 583676
                                                       epsilon: 0.0423195400085383
steps: 181
              lr: 4e-05
                             evaluation reward: 4.16
episode: 2550
                score: 2.0
                             memory length: 583857
                                                       epsilon:
0.04196116000853854
                       steps: 181
                                                     evaluation reward: 4.12
                                      lr: 4e-05
episode: 2551
                score: 4.0
                             memory length: 584135
                                                       epsilon:
0.04141072000853892
                       steps: 278
                                      lr: 4e-05
                                                     evaluation reward: 4.05
                                                       epsilon:
episode: 2552
                score: 3.0
                              memory length: 584364
0.04095730000853923
                       steps: 229
                                      lr: 4e-05
                                                     evaluation reward: 4.06
episode: 2553
                score: 2.0
                             memory length: 584544
                                                       epsilon:
0.04060090000853947
                       steps: 180
                                      lr: 4e-05
                                                     evaluation reward: 4.02
episode: 2554
                score: 3.0
                             memory length: 584793
                                                       epsilon:
0.040107880008539806
                         steps: 249
                                       lr: 4e-05
                                                      evaluation reward: 4.03
episode: 2555
                score: 5.0
                             memory length: 585073
                                                       epsilon:
0.039553480008540184
                         steps: 280
                                       lr: 4e-05
                                                      evaluation reward: 4.01
episode: 2556
                score: 4.0
                              memory length: 585331
                                                       epsilon:
0.03904264000854053
                       steps: 258
                                      lr: 4e-05
                                                     evaluation reward: 4.0
episode: 2557
                score: 6.0
                             memory length: 585636
                                                       epsilon:
0.038438740008540945
                        steps: 305
                                       lr: 4e-05
                                                      evaluation reward: 3.98
                score: 2.0
                              memory length: 585817
episode: 2558
                                                       epsilon:
0.03808036000854119
                       steps: 181
                                      lr: 4e-05
                                                     evaluation reward: 3.97
episode: 2559
                score: 8.0
                              memory length: 586252
                                                       epsilon:
0.03721906000854178
                       steps: 435
                                      lr: 4e-05
                                                     evaluation reward: 4.02
episode: 2560
                score: 6.0
                             memory length: 586573
                                                       epsilon:
0.03658348000854221
                       steps: 321
                                      lr: 4e-05
                                                     evaluation reward: 4.06
episode: 2561
                score: 7.0
                             memory length: 586925
                                                       epsilon:
0.035886520008542686
                         steps: 352
                                       lr: 4e-05
                                                     evaluation reward: 4.07
episode: 2562
                score: 2.0
                             memory length: 587106
                                                       epsilon:
0.03552814000854293
                       steps: 181
                                      lr: 4e-05
                                                     evaluation reward: 4.05
episode: 2563
                score: 2.0
                             memory length: 587287
                                                       epsilon:
0.035169760008543174
                         steps: 181
                                       lr: 4e-05
                                                     evaluation reward: 4.02
                score: 3.0
                             memory length: 587515
episode: 2564
                                                       epsilon:
                                                     evaluation reward: 4.02
0.03471832000854348
                       steps: 228
                                      lr: 4e-05
episode: 2565
                score: 5.0
                             memory length: 587795
                                                       epsilon:
0.03416392000854386
                       steps: 280
                                      lr: 4e-05
                                                     evaluation reward: 4.0
episode: 2566
                score: 5.0
                              memory length: 588075
                                                       epsilon:
0.03360952000854424
                       steps: 280
                                      lr: 4e-05
                                                     evaluation reward: 4.03
episode: 2567
                score: 8.0
                             memory length: 588460
                                                       epsilon:
0.03284722000854476
                       steps: 385
                                      lr: 4e-05
                                                     evaluation reward: 4.08
episode: 2568
                score: 5.0
                             memory length: 588740
                                                       epsilon:
0.03229282000854514
                       steps: 280
                                      lr: 4e-05
                                                     evaluation reward: 4.11
                             memory length: 588921
episode: 2569
                score: 2.0
                                                       epsilon:
```

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0.03193444000854538
                                                    evaluation reward: 4.1
                       steps: 181
                                      lr: 4e-05
episode: 2570
                score: 2.0
                             memory length: 589102
                                                      epsilon:
0.031576060008545626
                                       lr: 4e-05
                                                     evaluation reward: 4.07
                        steps: 181
episode: 2571
                score: 6.0
                             memory length: 589429
                                                      epsilon:
0.030928600008546067
                        steps: 327
                                       lr: 4e-05
                                                      evaluation reward: 4.09
episode: 2572
                score: 5.0
                             memory length: 589741
                                                      epsilon:
0.03031084000854649
                       steps: 312
                                      lr: 4e-05
                                                    evaluation reward: 4.04
episode: 2573
                score: 5.0
                             memory length: 590021
                                                      epsilon:
                                                     evaluation reward: 4.05
0.029756440008546867
                        steps: 280
                                       lr: 4e-05
                score: 3.0
                                                      epsilon:
episode: 2574
                             memory length: 590231
0.02934064000854715
                                      lr: 4e-05
                                                    evaluation reward: 4.06
                       steps: 210
episode: 2575
                score: 7.0
                             memory length: 590591
                                                      epsilon:
0.028627840008547636
                        steps: 360
                                       lr: 4e-05
                                                      evaluation reward: 4.11
episode: 2576
                score: 7.0
                             memory length: 590943
                                                      epsilon:
0.027930880008548112
                        steps: 352
                                       lr: 4e-05
                                                      evaluation reward: 4.16
episode: 2577
                score: 2.0
                             memory length: 591124
                                                      epsilon:
0.027572500008548356
                        steps: 181
                                       lr: 4e-05
                                                      evaluation reward: 4.11
                score: 5.0
                                                      epsilon:
episode: 2578
                             memory length: 591420
0.026986420008548756
                                       lr: 4e-05
                                                      evaluation reward: 4.13
                        steps: 296
episode: 2579
                score: 3.0
                             memory length: 591669
                                                      epsilon:
0.026493400008549092
                        steps: 249
                                       lr: 4e-05
                                                      evaluation reward: 4.09
episode: 2580
                score: 3.0
                             memory length: 591918
                                                      epsilon:
0.02600038000854943
                       steps: 249
                                      lr: 4e-05
                                                    evaluation reward: 4.07
                score: 6.0
episode: 2581
                             memory length: 592247
                                                      epsilon:
0.025348960008549873
                        steps: 329
                                       lr: 4e-05
                                                      evaluation reward: 4.11
episode: 2582
                score: 5.0
                             memory length: 592527
                                                      epsilon:
0.02479456000855025
                       steps: 280
                                      lr: 4e-05
                                                    evaluation reward: 4.11
episode: 2583
                score: 9.0
                             memory length: 592945
                                                      epsilon:
0.023966920008550816
                        steps: 418
                                       lr: 4e-05
                                                      evaluation reward: 4.18
episode: 2584
                score: 7.0
                             memory length: 593307
                                                      epsilon:
0.023250160008551304
                                                      evaluation reward: 4.23
                        steps: 362
                                       lr: 4e-05
episode: 2585
                score: 5.0
                             memory length: 593606
                                                      epsilon:
0.022658140008551708
                        steps: 299
                                       lr: 4e-05
                                                      evaluation reward: 4.24
                score: 4.0
episode: 2586
                             memory length: 593868
                                                      epsilon:
0.022139380008552062
                        steps: 262
                                       lr: 4e-05
                                                      evaluation reward: 4.24
episode: 2587
                score: 4.0
                             memory length: 594164
                                                      epsilon:
0.021553300008552462
                        steps: 296
                                       lr: 4e-05
                                                      evaluation reward: 4.24
                score: 5.0
                             memory length: 594452
episode: 2588
                                                      epsilon:
                                                    evaluation reward: 4.27
0.02098306000855285
                       steps: 288
                                      lr: 4e-05
episode: 2589
                score: 3.0
                             memory length: 594681
                                                      epsilon:
                                                    evaluation reward: 4.22
0.02052964000855316
                       steps: 229
                                      lr: 4e-05
                             memory length: 595008
                                                      epsilon: 0.0198821800085536
episode: 2590
                score: 6.0
              lr: 4e-05
                             evaluation reward: 4.25
steps: 327
episode: 2591
                score: 3.0
                             memory length: 595239
                                                      epsilon:
0.019424800008553914
                        steps: 231
                                       lr: 4e-05
                                                      evaluation reward: 4.24
episode: 2592
                score: 7.0
                             memory length: 595597
                                                      epsilon:
0.018715960008554397
                        steps: 358
                                       lr: 4e-05
                                                      evaluation reward: 4.29
                score: 7.0
                             memory length: 595975
episode: 2593
                                                      epsilon:
```

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evaluation reward: 4.33
0.017967520008554907
                        steps: 378
                                       lr: 4e-05
episode: 2594
                score: 6.0
                             memory length: 596333
                                                      epsilon:
                       steps: 358
0.01725868000855539
                                                    evaluation reward: 4.31
                                      lr: 4e-05
                              memory length: 596660
episode: 2595
                score: 6.0
                                                      epsilon:
0.016611220008555833
                        steps: 327
                                       lr: 4e-05
                                                      evaluation reward: 4.32
episode: 2596
                score: 4.0
                             memory length: 596934
                                                      epsilon:
0.016068700008556203
                        steps: 274
                                       lr: 4e-05
                                                      evaluation reward: 4.29
episode: 2597
                score: 4.0
                             memory length: 597197
                                                      epsilon:
0.01554796000855649
                                                    evaluation reward: 4.29
                       steps: 263
                                      lr: 4e-05
                score: 4.0
                                                      epsilon:
episode: 2598
                             memory length: 597456
0.01503514000855639
                       steps: 259
                                                    evaluation reward: 4.31
                                      lr: 4e-05
episode: 2599
                score: 10.0
                              memory length: 597958
                                                        epsilon:
0.014041180008556198
                        steps: 502
                                       lr: 4e-05
                                                      evaluation reward: 4.37
episode: 2600
                score: 7.0
                              memory length: 598313
                                                      epsilon:
0.013338280008556061
                        steps: 355
                                       lr: 4e-05
                                                      evaluation reward: 4.41
episode: 2601
                score: 5.0
                             memory length: 598593
                                                      epsilon:
0.012783880008555954
                        steps: 280
                                       lr: 4e-05
                                                      evaluation reward: 4.39
episode: 2602
                score: 8.0
                             memory length: 598952
                                                      epsilon:
0.012073060008555816
                                       lr: 4e-05
                                                      evaluation reward: 4.45
                        steps: 359
episode: 2603
                score: 6.0
                             memory length: 599257
                                                      epsilon:
0.011469160008555699
                        steps: 305
                                       lr: 4e-05
                                                      evaluation reward: 4.49
episode: 2604
                score: 5.0
                              memory length: 599553
                                                      epsilon:
0.010883080008555585
                        steps: 296
                                       lr: 4e-05
                                                      evaluation reward: 4.47
episode: 2605
                score: 2.0
                             memory length: 599734
                                                      epsilon:
0.010524700008555515
                                       lr: 4e-05
                                                      evaluation reward: 4.44
                        steps: 181
episode: 2606
                score: 3.0
                             memory length: 599964
                                                      epsilon:
0.010069300008555427
                        steps: 230
                                       lr: 4e-05
                                                      evaluation reward: 4.45
episode: 2607
                score: 6.0
                              memory length: 600318
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.47
                        steps: 354
                                       lr: 4e-05
episode: 2608
                score: 3.0
                             memory length: 600567
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.47
                        steps: 249
                                       lr: 4e-05
episode: 2609
                score: 6.0
                             memory length: 600894
                                                      epsilon:
0.009998020008555413
                        steps: 327
                                       lr: 4e-05
                                                      evaluation reward: 4.47
episode: 2610
                score: 3.0
                              memory length: 601122
                                                      epsilon:
0.009998020008555413
                        steps: 228
                                       lr: 4e-05
                                                      evaluation reward: 4.44
episode: 2611
                score: 6.0
                             memory length: 601482
                                                      epsilon:
0.009998020008555413
                        steps: 360
                                       lr: 4e-05
                                                      evaluation reward: 4.45
episode: 2612
                score: 4.0
                             memory length: 601744
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.45
                        steps: 262
                                       lr: 4e-05
episode: 2613
                score: 4.0
                             memory length: 602002
                                                      epsilon:
0.009998020008555413
                                                     evaluation reward: 4.44
                        steps: 258
                                       lr: 4e-05
episode: 2614
                score: 4.0
                              memory length: 602279
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.43
                        steps: 277
episode: 2615
                score: 4.0
                             memory length: 602535
                                                      epsilon:
0.009998020008555413
                        steps: 256
                                                      evaluation reward: 4.4
                                       lr: 4e-05
episode: 2616
                score: 3.0
                             memory length: 602766
                                                      epsilon:
0.009998020008555413
                        steps: 231
                                       lr: 4e-05
                                                      evaluation reward: 4.39
                             memory length: 602978
episode: 2617
                score: 3.0
                                                      epsilon:
```

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evaluation reward: 4.37
0.009998020008555413
                        steps: 212
                                       lr: 4e-05
episode: 2618
                score: 6.0
                             memory length: 603312
                                                      epsilon:
                        steps: 334
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.41
                             memory length: 603622
episode: 2619
                score: 5.0
                                                      epsilon:
0.009998020008555413
                        steps: 310
                                       lr: 4e-05
                                                      evaluation reward: 4.43
episode: 2620
                score: 3.0
                             memory length: 603850
                                                      epsilon:
0.009998020008555413
                        steps: 228
                                       lr: 4e-05
                                                      evaluation reward: 4.4
episode: 2621
                score: 4.0
                             memory length: 604128
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.37
                        steps: 278
                                       lr: 4e-05
                score: 6.0
episode: 2622
                             memory length: 604457
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.37
                        steps: 329
episode: 2623
                score: 7.0
                             memory length: 604814
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.4
                        steps: 357
                                       lr: 4e-05
episode: 2624
                score: 5.0
                             memory length: 605126
                                                      epsilon:
0.009998020008555413
                        steps: 312
                                       lr: 4e-05
                                                      evaluation reward: 4.43
episode: 2625
                score: 4.0
                             memory length: 605400
                                                      epsilon:
0.009998020008555413
                        steps: 274
                                       lr: 4e-05
                                                      evaluation reward: 4.42
episode: 2626
                score: 3.0
                             memory length: 605647
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.41
                        steps: 247
episode: 2627
                score: 3.0
                             memory length: 605878
                                                      epsilon:
                                                      evaluation reward: 4.37
0.009998020008555413
                        steps: 231
                                       lr: 4e-05
episode: 2628
                score: 6.0
                             memory length: 606235
                                                      epsilon:
0.009998020008555413
                        steps: 357
                                       lr: 4e-05
                                                      evaluation reward: 4.38
episode: 2629
                score: 6.0
                             memory length: 606578
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.42
                        steps: 343
episode: 2630
                score: 4.0
                             memory length: 606852
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.44
                        steps: 274
                                       lr: 4e-05
episode: 2631
                score: 6.0
                             memory length: 607157
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.47
                        steps: 305
                                       lr: 4e-05
episode: 2632
                score: 5.0
                             memory length: 607437
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.49
                        steps: 280
                                       lr: 4e-05
episode: 2633
                score: 6.0
                             memory length: 607764
                                                      epsilon:
0.009998020008555413
                        steps: 327
                                       lr: 4e-05
                                                      evaluation reward: 4.52
episode: 2634
                score: 9.0
                             memory length: 608266
                                                      epsilon:
0.009998020008555413
                        steps: 502
                                       lr: 4e-05
                                                      evaluation reward: 4.59
episode: 2635
                score: 3.0
                             memory length: 608494
                                                      epsilon:
0.009998020008555413
                        steps: 228
                                       lr: 4e-05
                                                      evaluation reward: 4.58
episode: 2636
                score: 7.0
                             memory length: 608865
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.63
                        steps: 371
                                       lr: 4e-05
episode: 2637
                score: 3.0
                             memory length: 609093
                                                      epsilon:
0.009998020008555413
                                                     evaluation reward: 4.63
                        steps: 228
                                       lr: 4e-05
episode: 2638
                score: 3.0
                             memory length: 609303
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.62
                        steps: 210
episode: 2639
                score: 4.0
                             memory length: 609577
                                                      epsilon:
0.009998020008555413
                        steps: 274
                                       lr: 4e-05
                                                      evaluation reward: 4.63
episode: 2640
                score: 4.0
                             memory length: 609838
                                                      epsilon:
0.009998020008555413
                        steps: 261
                                       lr: 4e-05
                                                      evaluation reward: 4.64
episode: 2641
                score: 4.0
                             memory length: 610098
                                                      epsilon:
```

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evaluation reward: 4.65
0.009998020008555413
                        steps: 260
                                       lr: 4e-05
episode: 2642
                score: 6.0
                             memory length: 610440
                                                      epsilon:
                        steps: 342
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.68
                              memory length: 610794
episode: 2643
                score: 6.0
                                                      epsilon:
0.009998020008555413
                        steps: 354
                                       lr: 4e-05
                                                      evaluation reward: 4.7
episode: 2644
                score: 3.0
                             memory length: 611041
                                                      epsilon:
0.009998020008555413
                        steps: 247
                                       lr: 4e-05
                                                      evaluation reward: 4.64
episode: 2645
                score: 6.0
                             memory length: 611383
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.66
                        steps: 342
                                       lr: 4e-05
                score: 5.0
                                                      epsilon:
episode: 2646
                             memory length: 611710
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.68
                        steps: 327
episode: 2647
                score: 4.0
                              memory length: 611988
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.7
                        steps: 278
episode: 2648
                score: 10.0
                               memory length: 612368
                                                        epsilon:
0.009998020008555413
                        steps: 380
                                       lr: 4e-05
                                                      evaluation reward: 4.77
episode: 2649
                score: 3.0
                             memory length: 612599
                                                      epsilon:
0.009998020008555413
                        steps: 231
                                       lr: 4e-05
                                                      evaluation reward: 4.78
episode: 2650
                score: 3.0
                             memory length: 612830
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.79
                        steps: 231
episode: 2651
                score: 4.0
                             memory length: 613091
                                                      epsilon:
0.009998020008555413
                        steps: 261
                                       lr: 4e-05
                                                      evaluation reward: 4.79
episode: 2652
                score: 4.0
                              memory length: 613389
                                                      epsilon:
0.009998020008555413
                        steps: 298
                                       lr: 4e-05
                                                      evaluation reward: 4.8
episode: 2653
                score: 6.0
                             memory length: 613731
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.84
                        steps: 342
episode: 2654
                score: 3.0
                             memory length: 613960
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.84
                        steps: 229
                                       lr: 4e-05
episode: 2655
                score: 4.0
                              memory length: 614234
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.83
                        steps: 274
                                       lr: 4e-05
episode: 2656
                score: 6.0
                             memory length: 614576
                                                      epsilon:
0.009998020008555413
                        steps: 342
                                                      evaluation reward: 4.85
                                       lr: 4e-05
episode: 2657
                score: 6.0
                             memory length: 614934
                                                      epsilon:
0.009998020008555413
                        steps: 358
                                       lr: 4e-05
                                                      evaluation reward: 4.85
episode: 2658
                score: 2.0
                              memory length: 615115
                                                      epsilon:
0.009998020008555413
                        steps: 181
                                       lr: 4e-05
                                                      evaluation reward: 4.85
episode: 2659
                score: 3.0
                             memory length: 615327
                                                      epsilon:
0.009998020008555413
                        steps: 212
                                       lr: 4e-05
                                                      evaluation reward: 4.8
episode: 2660
                score: 4.0
                             memory length: 615581
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.78
                        steps: 254
                                       lr: 4e-05
episode: 2661
                score: 4.0
                             memory length: 615859
                                                      epsilon:
0.009998020008555413
                                                     evaluation reward: 4.75
                        steps: 278
                                       lr: 4e-05
episode: 2662
                score: 2.0
                              memory length: 616040
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.75
                        steps: 181
episode: 2663
                score: 6.0
                             memory length: 616367
                                                      epsilon:
0.009998020008555413
                        steps: 327
                                                      evaluation reward: 4.79
                                       lr: 4e-05
episode: 2664
                score: 2.0
                             memory length: 616548
                                                      epsilon:
0.009998020008555413
                        steps: 181
                                       lr: 4e-05
                                                      evaluation reward: 4.78
episode: 2665
                score: 3.0
                             memory length: 616776
                                                      epsilon:
```

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0.009998020008555413
                                                      evaluation reward: 4.76
                         steps: 228
                                       lr: 4e-05
episode: 2666
                score: 4.0
                             memory length: 617074
                                                       epsilon:
                         steps: 298
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.75
                              memory length: 617255
episode: 2667
                score: 2.0
                                                       epsilon:
0.009998020008555413
                         steps: 181
                                       lr: 4e-05
                                                      evaluation reward: 4.69
episode: 2668
                score: 5.0
                             memory length: 617582
                                                       epsilon:
0.009998020008555413
                         steps: 327
                                       lr: 4e-05
                                                      evaluation reward: 4.69
                              memory length: 617927
episode: 2669
                score: 6.0
                                                       epsilon:
0.009998020008555413
                                                      evaluation reward: 4.73
                         steps: 345
                                       lr: 4e-05
                score: 5.0
                                                       epsilon:
episode: 2670
                             memory length: 618253
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.76
                         steps: 326
episode: 2671
                score: 7.0
                              memory length: 618636
                                                       epsilon:
0.009998020008555413
                                                      evaluation reward: 4.77
                         steps: 383
                                       lr: 4e-05
episode: 2672
                score: 6.0
                              memory length: 618947
                                                       epsilon:
0.009998020008555413
                         steps: 311
                                       lr: 4e-05
                                                      evaluation reward: 4.78
episode: 2673
                score: 2.0
                             memory length: 619128
                                                       epsilon:
0.009998020008555413
                         steps: 181
                                       lr: 4e-05
                                                      evaluation reward: 4.75
episode: 2674
                score: 6.0
                             memory length: 619486
                                                       epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.78
                         steps: 358
episode: 2675
                score: 6.0
                             memory length: 619846
                                                       epsilon:
0.009998020008555413
                         steps: 360
                                       lr: 4e-05
                                                      evaluation reward: 4.77
episode: 2676
                score: 7.0
                              memory length: 620236
                                                       epsilon:
0.009998020008555413
                         steps: 390
                                       lr: 4e-05
                                                      evaluation reward: 4.77
episode: 2677
                score: 4.0
                             memory length: 620495
                                                       epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.79
                         steps: 259
episode: 2678
                score: 2.0
                             memory length: 620676
                                                       epsilon:
0.009998020008555413
                         steps: 181
                                       lr: 4e-05
                                                      evaluation reward: 4.76
episode: 2679
                score: 8.0
                              memory length: 621056
                                                       epsilon:
0.009998020008555413
                                                      evaluation reward: 4.81
                         steps: 380
                                       lr: 4e-05
episode: 2680
                score: 4.0
                             memory length: 621336
                                                       epsilon:
0.009998020008555413
                                                      evaluation reward: 4.82
                         steps: 280
                                       lr: 4e-05
episode: 2681
                score: 5.0
                             memory length: 621663
                                                       epsilon:
0.009998020008555413
                         steps: 327
                                       lr: 4e-05
                                                      evaluation reward: 4.81
episode: 2682
                score: 5.0
                              memory length: 621987
                                                       epsilon:
0.009998020008555413
                         steps: 324
                                       lr: 4e-05
                                                      evaluation reward: 4.81
episode: 2683
                score: 7.0
                              memory length: 622400
                                                       epsilon:
0.009998020008555413
                         steps: 413
                                       lr: 4e-05
                                                      evaluation reward: 4.79
episode: 2684
                score: 4.0
                             memory length: 622678
                                                       epsilon:
                                                      evaluation reward: 4.76
0.009998020008555413
                         steps: 278
                                       lr: 4e-05
episode: 2685
                score: 3.0
                             memory length: 622890
                                                       epsilon:
0.009998020008555413
                                                      evaluation reward: 4.74
                         steps: 212
                                       lr: 4e-05
episode: 2686
                score: 5.0
                              memory length: 623220
                                                       epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.75
                         steps: 330
episode: 2687
                score: 4.0
                             memory length: 623480
                                                       epsilon:
0.009998020008555413
                         steps: 260
                                       lr: 4e-05
                                                      evaluation reward: 4.75
episode: 2688
                score: 3.0
                             memory length: 623708
                                                       epsilon:
0.009998020008555413
                         steps: 228
                                       lr: 4e-05
                                                      evaluation reward: 4.73
episode: 2689
                             memory length: 623957
                score: 3.0
                                                       epsilon:
```

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evaluation reward: 4.73
0.009998020008555413
                        steps: 249
                                       lr: 4e-05
episode: 2690
                score: 5.0
                             memory length: 624237
                                                      epsilon:
                        steps: 280
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.72
                              memory length: 624465
episode: 2691
                score: 3.0
                                                      epsilon:
0.009998020008555413
                        steps: 228
                                       lr: 4e-05
                                                      evaluation reward: 4.72
episode: 2692
                score: 4.0
                             memory length: 624743
                                                      epsilon:
0.009998020008555413
                        steps: 278
                                       lr: 4e-05
                                                      evaluation reward: 4.69
                              memory length: 625003
episode: 2693
                score: 4.0
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.66
                        steps: 260
                                       lr: 4e-05
                score: 5.0
                                                      epsilon:
episode: 2694
                             memory length: 625331
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.65
                        steps: 328
                                                      epsilon:
episode: 2695
                score: 2.0
                              memory length: 625512
0.009998020008555413
                                                      evaluation reward: 4.61
                        steps: 181
                                       lr: 4e-05
episode: 2696
                score: 4.0
                              memory length: 625791
                                                      epsilon:
0.009998020008555413
                        steps: 279
                                       lr: 4e-05
                                                      evaluation reward: 4.61
episode: 2697
                score: 3.0
                             memory length: 626022
                                                      epsilon:
0.009998020008555413
                        steps: 231
                                       lr: 4e-05
                                                      evaluation reward: 4.6
episode: 2698
                score: 5.0
                             memory length: 626368
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.61
                        steps: 346
episode: 2699
                score: 3.0
                             memory length: 626599
                                                      epsilon:
0.009998020008555413
                        steps: 231
                                       lr: 4e-05
                                                      evaluation reward: 4.54
episode: 2700
                score: 2.0
                              memory length: 626780
                                                      epsilon:
0.009998020008555413
                        steps: 181
                                       lr: 4e-05
                                                      evaluation reward: 4.49
episode: 2701
                score: 4.0
                             memory length: 627078
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.48
                        steps: 298
episode: 2702
                score: 4.0
                              memory length: 627375
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.44
                        steps: 297
                                       lr: 4e-05
episode: 2703
                score: 8.0
                              memory length: 627790
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.46
                        steps: 415
                                       lr: 4e-05
episode: 2704
                score: 4.0
                             memory length: 628086
                                                      epsilon:
0.009998020008555413
                        steps: 296
                                                      evaluation reward: 4.45
                                       lr: 4e-05
episode: 2705
                score: 2.0
                             memory length: 628267
                                                      epsilon:
0.009998020008555413
                        steps: 181
                                       lr: 4e-05
                                                      evaluation reward: 4.45
episode: 2706
                score: 4.0
                              memory length: 628564
                                                      epsilon:
0.009998020008555413
                        steps: 297
                                       lr: 4e-05
                                                      evaluation reward: 4.46
episode: 2707
                score: 4.0
                              memory length: 628861
                                                      epsilon:
0.009998020008555413
                        steps: 297
                                       lr: 4e-05
                                                      evaluation reward: 4.44
episode: 2708
                score: 3.0
                             memory length: 629089
                                                      epsilon:
                                                      evaluation reward: 4.44
0.009998020008555413
                        steps: 228
                                       lr: 4e-05
episode: 2709
                score: 5.0
                             memory length: 629397
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.43
                        steps: 308
                                       lr: 4e-05
episode: 2710
                score: 4.0
                              memory length: 629674
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.44
                        steps: 277
episode: 2711
                score: 2.0
                             memory length: 629855
                                                      epsilon:
0.009998020008555413
                        steps: 181
                                       lr: 4e-05
                                                      evaluation reward: 4.4
episode: 2712
                score: 2.0
                             memory length: 630036
                                                      epsilon:
0.009998020008555413
                        steps: 181
                                       lr: 4e-05
                                                      evaluation reward: 4.38
episode: 2713
                             memory length: 630361
                score: 5.0
                                                      epsilon:
```

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evaluation reward: 4.39
0.009998020008555413
                        steps: 325
                                       lr: 4e-05
episode: 2714
                score: 3.0
                             memory length: 630591
                                                      epsilon:
                        steps: 230
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.38
                             memory length: 630819
episode: 2715
                score: 3.0
                                                      epsilon:
0.009998020008555413
                        steps: 228
                                       lr: 4e-05
                                                      evaluation reward: 4.37
episode: 2716
                score: 4.0
                             memory length: 631080
                                                      epsilon:
0.009998020008555413
                        steps: 261
                                       lr: 4e-05
                                                      evaluation reward: 4.38
episode: 2717
                score: 6.0
                             memory length: 631439
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.41
                        steps: 359
                                       lr: 4e-05
episode: 2718
                score: 2.0
                             memory length: 631620
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.37
                        steps: 181
episode: 2719
                score: 2.0
                             memory length: 631801
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.34
                        steps: 181
                                       lr: 4e-05
episode: 2720
                score: 2.0
                             memory length: 631982
                                                      epsilon:
0.009998020008555413
                        steps: 181
                                       lr: 4e-05
                                                      evaluation reward: 4.33
episode: 2721
                score: 4.0
                             memory length: 632236
                                                      epsilon:
0.009998020008555413
                        steps: 254
                                       lr: 4e-05
                                                      evaluation reward: 4.33
episode: 2722
                score: 2.0
                             memory length: 632417
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.29
                        steps: 181
episode: 2723
                score: 5.0
                             memory length: 632704
                                                      epsilon:
0.009998020008555413
                        steps: 287
                                       lr: 4e-05
                                                      evaluation reward: 4.27
episode: 2724
                score: 5.0
                             memory length: 633013
                                                      epsilon:
0.009998020008555413
                        steps: 309
                                       lr: 4e-05
                                                     evaluation reward: 4.27
episode: 2725
                score: 10.0
                              memory length: 633454
                                                        epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.33
                        steps: 441
episode: 2726
                score: 2.0
                             memory length: 633635
                                                      epsilon:
0.009998020008555413
                        steps: 181
                                       lr: 4e-05
                                                      evaluation reward: 4.32
episode: 2727
                score: 3.0
                             memory length: 633866
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.32
                        steps: 231
                                       lr: 4e-05
episode: 2728
                score: 3.0
                             memory length: 634097
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.29
                        steps: 231
                                       lr: 4e-05
episode: 2729
                score: 7.0
                             memory length: 634490
                                                      epsilon:
0.009998020008555413
                        steps: 393
                                       lr: 4e-05
                                                      evaluation reward: 4.3
episode: 2730
                score: 3.0
                             memory length: 634738
                                                      epsilon:
0.009998020008555413
                        steps: 248
                                       lr: 4e-05
                                                      evaluation reward: 4.29
episode: 2731
                score: 9.0
                             memory length: 635208
                                                      epsilon:
0.009998020008555413
                        steps: 470
                                       lr: 4e-05
                                                      evaluation reward: 4.32
episode: 2732
                score: 3.0
                             memory length: 635439
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.3
                        steps: 231
                                       lr: 4e-05
episode: 2733
                score: 9.0
                             memory length: 635884
                                                      epsilon:
0.009998020008555413
                                                     evaluation reward: 4.33
                        steps: 445
                                       lr: 4e-05
episode: 2734
                score: 5.0
                             memory length: 636182
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.29
                        steps: 298
episode: 2735
                score: 5.0
                             memory length: 636510
                                                      epsilon:
0.009998020008555413
                        steps: 328
                                       lr: 4e-05
                                                      evaluation reward: 4.31
episode: 2736
                score: 3.0
                             memory length: 636757
                                                      epsilon:
0.009998020008555413
                        steps: 247
                                       lr: 4e-05
                                                      evaluation reward: 4.27
episode: 2737
                score: 7.0
                             memory length: 637141
                                                      epsilon:
```

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0.009998020008555413
                        steps: 384
                                                      evaluation reward: 4.31
                                       lr: 4e-05
episode: 2738
                score: 3.0
                             memory length: 637351
                                                      epsilon:
                        steps: 210
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.31
episode: 2739
                score: 5.0
                              memory length: 637642
                                                      epsilon:
                                                      evaluation reward: 4.32
0.009998020008555413
                        steps: 291
                                       lr: 4e-05
episode: 2740
                score: 2.0
                             memory length: 637823
                                                      epsilon:
0.009998020008555413
                        steps: 181
                                       lr: 4e-05
                                                      evaluation reward: 4.3
episode: 2741
                score: 2.0
                              memory length: 638004
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.28
                        steps: 181
                                       lr: 4e-05
                score: 2.0
episode: 2742
                             memory length: 638185
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.24
                        steps: 181
episode: 2743
                score: 3.0
                              memory length: 638414
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.21
                        steps: 229
episode: 2744
                score: 2.0
                              memory length: 638595
                                                      epsilon:
0.009998020008555413
                        steps: 181
                                       lr: 4e-05
                                                      evaluation reward: 4.2
episode: 2745
                score: 3.0
                             memory length: 638822
                                                      epsilon:
0.009998020008555413
                        steps: 227
                                       lr: 4e-05
                                                      evaluation reward: 4.17
episode: 2746
                score: 7.0
                             memory length: 639212
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.19
                        steps: 390
episode: 2747
                score: 3.0
                             memory length: 639443
                                                      epsilon:
0.009998020008555413
                        steps: 231
                                       lr: 4e-05
                                                      evaluation reward: 4.18
episode: 2748
                score: 3.0
                              memory length: 639674
                                                      epsilon:
0.009998020008555413
                        steps: 231
                                       lr: 4e-05
                                                      evaluation reward: 4.11
episode: 2749
                score: 3.0
                             memory length: 639901
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.11
                        steps: 227
episode: 2750
                score: 3.0
                             memory length: 640132
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.11
                        steps: 231
episode: 2751
                score: 4.0
                              memory length: 640406
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.11
                        steps: 274
                                       lr: 4e-05
episode: 2752
                score: 6.0
                             memory length: 640766
                                                      epsilon:
                        steps: 360
0.009998020008555413
                                                      evaluation reward: 4.13
                                       lr: 4e-05
episode: 2753
                score: 3.0
                             memory length: 640997
                                                      epsilon:
0.009998020008555413
                        steps: 231
                                       lr: 4e-05
                                                      evaluation reward: 4.1
episode: 2754
                score: 7.0
                              memory length: 641370
                                                      epsilon:
0.009998020008555413
                        steps: 373
                                       lr: 4e-05
                                                      evaluation reward: 4.14
episode: 2755
                score: 4.0
                              memory length: 641650
                                                      epsilon:
0.009998020008555413
                        steps: 280
                                       lr: 4e-05
                                                      evaluation reward: 4.14
episode: 2756
                score: 3.0
                             memory length: 641881
                                                      epsilon:
                                                      evaluation reward: 4.11
0.009998020008555413
                        steps: 231
                                       lr: 4e-05
episode: 2757
                score: 4.0
                             memory length: 642135
                                                      epsilon:
0.009998020008555413
                                                     evaluation reward: 4.09
                        steps: 254
                                       lr: 4e-05
episode: 2758
                score: 8.0
                              memory length: 642592
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.15
                        steps: 457
episode: 2759
                score: 6.0
                             memory length: 642934
                                                      epsilon:
0.009998020008555413
                        steps: 342
                                       lr: 4e-05
                                                      evaluation reward: 4.18
episode: 2760
                score: 3.0
                             memory length: 643164
                                                      epsilon:
0.009998020008555413
                        steps: 230
                                       lr: 4e-05
                                                      evaluation reward: 4.17
episode: 2761
                score: 3.0
                             memory length: 643395
                                                      epsilon:
```

```
0.009998020008555413
                                                      evaluation reward: 4.16
                        steps: 231
                                       lr: 4e-05
episode: 2762
                score: 3.0
                             memory length: 643624
                                                      epsilon:
                        steps: 229
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.17
episode: 2763
                score: 4.0
                              memory length: 643885
                                                      epsilon:
0.009998020008555413
                        steps: 261
                                       lr: 4e-05
                                                      evaluation reward: 4.15
episode: 2764
                score: 3.0
                             memory length: 644113
                                                      epsilon:
0.009998020008555413
                        steps: 228
                                       lr: 4e-05
                                                      evaluation reward: 4.16
episode: 2765
                score: 5.0
                             memory length: 644421
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.18
                        steps: 308
                                       lr: 4e-05
                score: 3.0
episode: 2766
                             memory length: 644670
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.17
                        steps: 249
episode: 2767
                score: 8.0
                              memory length: 644983
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.23
                        steps: 313
                                       lr: 4e-05
episode: 2768
                score: 6.0
                              memory length: 645336
                                                      epsilon:
0.009998020008555413
                        steps: 353
                                       lr: 4e-05
                                                      evaluation reward: 4.24
episode: 2769
                score: 2.0
                             memory length: 645517
                                                      epsilon:
0.009998020008555413
                        steps: 181
                                       lr: 4e-05
                                                      evaluation reward: 4.2
episode: 2770
                score: 4.0
                             memory length: 645797
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.19
                        steps: 280
episode: 2771
                score: 2.0
                             memory length: 645978
                                                      epsilon:
                                                      evaluation reward: 4.14
0.009998020008555413
                        steps: 181
                                       lr: 4e-05
episode: 2772
                score: 2.0
                              memory length: 646159
                                                      epsilon:
0.009998020008555413
                        steps: 181
                                       lr: 4e-05
                                                      evaluation reward: 4.1
episode: 2773
                score: 3.0
                             memory length: 646389
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.11
                        steps: 230
episode: 2774
                score: 4.0
                             memory length: 646648
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.09
                        steps: 259
                                       lr: 4e-05
episode: 2775
                score: 3.0
                              memory length: 646875
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.06
                        steps: 227
                                       lr: 4e-05
episode: 2776
                score: 2.0
                             memory length: 647056
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.01
                        steps: 181
                                       lr: 4e-05
episode: 2777
                score: 3.0
                             memory length: 647287
                                                      epsilon:
0.009998020008555413
                        steps: 231
                                       lr: 4e-05
                                                      evaluation reward: 4.0
episode: 2778
                score: 4.0
                              memory length: 647547
                                                      epsilon:
0.009998020008555413
                        steps: 260
                                       lr: 4e-05
                                                      evaluation reward: 4.02
episode: 2779
                score: 16.0
                               memory length: 648197
                                                        epsilon:
                                                      evaluation reward: 4.1
0.009998020008555413
                        steps: 650
                                       lr: 4e-05
episode: 2780
                score: 4.0
                             memory length: 648474
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.1
                        steps: 277
                                       lr: 4e-05
episode: 2781
                score: 4.0
                             memory length: 648733
                                                      epsilon:
0.009998020008555413
                                                     evaluation reward: 4.09
                        steps: 259
                                       lr: 4e-05
episode: 2782
                score: 3.0
                              memory length: 648962
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.07
                        steps: 229
episode: 2783
                score: 2.0
                             memory length: 649143
                                                      epsilon:
0.009998020008555413
                        steps: 181
                                       lr: 4e-05
                                                      evaluation reward: 4.02
episode: 2784
                score: 5.0
                             memory length: 649450
                                                      epsilon:
0.009998020008555413
                        steps: 307
                                       lr: 4e-05
                                                      evaluation reward: 4.03
episode: 2785
                score: 5.0
                             memory length: 649760
                                                      epsilon:
```

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0.009998020008555413
                                                      evaluation reward: 4.05
                        steps: 310
                                       lr: 4e-05
episode: 2786
                score: 8.0
                             memory length: 650184
                                                       epsilon:
                        steps: 424
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.08
                              memory length: 650483
episode: 2787
                score: 4.0
                                                       epsilon:
0.009998020008555413
                        steps: 299
                                       lr: 4e-05
                                                      evaluation reward: 4.08
episode: 2788
                score: 3.0
                             memory length: 650732
                                                       epsilon:
0.009998020008555413
                        steps: 249
                                       lr: 4e-05
                                                      evaluation reward: 4.08
episode: 2789
                score: 4.0
                             memory length: 650988
                                                       epsilon:
0.009998020008555413
                                                      evaluation reward: 4.09
                        steps: 256
                                       lr: 4e-05
                score: 4.0
                                                       epsilon:
episode: 2790
                             memory length: 651247
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.08
                        steps: 259
episode: 2791
                score: 6.0
                              memory length: 651601
                                                       epsilon:
0.009998020008555413
                                                      evaluation reward: 4.11
                        steps: 354
                                       lr: 4e-05
episode: 2792
                score: 3.0
                              memory length: 651829
                                                       epsilon:
0.009998020008555413
                        steps: 228
                                       lr: 4e-05
                                                      evaluation reward: 4.1
episode: 2793
                score: 3.0
                             memory length: 652060
                                                       epsilon:
0.009998020008555413
                        steps: 231
                                       lr: 4e-05
                                                      evaluation reward: 4.09
episode: 2794
                score: 3.0
                             memory length: 652288
                                                       epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.07
                        steps: 228
episode: 2795
                score: 3.0
                             memory length: 652516
                                                       epsilon:
0.009998020008555413
                        steps: 228
                                       lr: 4e-05
                                                      evaluation reward: 4.08
episode: 2796
                score: 4.0
                              memory length: 652775
                                                       epsilon:
0.009998020008555413
                        steps: 259
                                       lr: 4e-05
                                                      evaluation reward: 4.08
episode: 2797
                score: 4.0
                             memory length: 653053
                                                       epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.09
                        steps: 278
episode: 2798
                score: 2.0
                             memory length: 653234
                                                       epsilon:
0.009998020008555413
                                                      evaluation reward: 4.06
                        steps: 181
                                       lr: 4e-05
episode: 2799
                score: 4.0
                              memory length: 653495
                                                       epsilon:
0.009998020008555413
                                                      evaluation reward: 4.07
                        steps: 261
                                       lr: 4e-05
episode: 2800
                score: 8.0
                             memory length: 653935
                                                       epsilon:
0.009998020008555413
                                                      evaluation reward: 4.13
                        steps: 440
                                       lr: 4e-05
episode: 2801
                score: 4.0
                             memory length: 654211
                                                       epsilon:
0.009998020008555413
                        steps: 276
                                       lr: 4e-05
                                                      evaluation reward: 4.13
episode: 2802
                score: 3.0
                              memory length: 654442
                                                       epsilon:
0.009998020008555413
                        steps: 231
                                       lr: 4e-05
                                                      evaluation reward: 4.12
episode: 2803
                score: 7.0
                              memory length: 654799
                                                       epsilon:
0.009998020008555413
                        steps: 357
                                       lr: 4e-05
                                                      evaluation reward: 4.11
episode: 2804
                score: 4.0
                             memory length: 655060
                                                       epsilon:
                                                      evaluation reward: 4.11
0.009998020008555413
                        steps: 261
                                       lr: 4e-05
episode: 2805
                score: 3.0
                             memory length: 655309
                                                       epsilon:
0.009998020008555413
                                                     evaluation reward: 4.12
                        steps: 249
                                       lr: 4e-05
episode: 2806
                score: 7.0
                              memory length: 655678
                                                       epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.15
                        steps: 369
episode: 2807
                score: 11.0
                              memory length: 656214
                                                        epsilon:
0.009998020008555413
                        steps: 536
                                       lr: 4e-05
                                                     evaluation reward: 4.22
episode: 2808
                score: 3.0
                              memory length: 656463
                                                       epsilon:
0.009998020008555413
                        steps: 249
                                       lr: 4e-05
                                                      evaluation reward: 4.22
episode: 2809
                score: 5.0
                             memory length: 656754
                                                       epsilon:
```

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0.009998020008555413
                                                      evaluation reward: 4.22
                        steps: 291
                                       lr: 4e-05
episode: 2810
                score: 6.0
                             memory length: 657088
                                                      epsilon:
                        steps: 334
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.24
                              memory length: 657449
episode: 2811
                score: 7.0
                                                      epsilon:
0.009998020008555413
                        steps: 361
                                       lr: 4e-05
                                                      evaluation reward: 4.29
episode: 2812
                score: 6.0
                             memory length: 657795
                                                      epsilon:
0.009998020008555413
                        steps: 346
                                       lr: 4e-05
                                                      evaluation reward: 4.33
episode: 2813
                score: 5.0
                              memory length: 658088
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.33
                        steps: 293
                                       lr: 4e-05
                score: 6.0
                                                      epsilon:
episode: 2814
                             memory length: 658436
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.36
                        steps: 348
episode: 2815
                score: 2.0
                              memory length: 658617
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.35
                        steps: 181
                                       lr: 4e-05
episode: 2816
                score: 5.0
                              memory length: 658908
                                                      epsilon:
0.009998020008555413
                        steps: 291
                                       lr: 4e-05
                                                      evaluation reward: 4.36
episode: 2817
                score: 4.0
                             memory length: 659201
                                                      epsilon:
0.009998020008555413
                        steps: 293
                                       lr: 4e-05
                                                      evaluation reward: 4.34
episode: 2818
                score: 4.0
                             memory length: 659460
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.36
                        steps: 259
episode: 2819
                score: 5.0
                             memory length: 659750
                                                      epsilon:
0.009998020008555413
                        steps: 290
                                       lr: 4e-05
                                                      evaluation reward: 4.39
episode: 2820
                score: 4.0
                              memory length: 660009
                                                      epsilon:
0.009998020008555413
                        steps: 259
                                       lr: 4e-05
                                                      evaluation reward: 4.41
episode: 2821
                score: 4.0
                             memory length: 660266
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.41
                        steps: 257
episode: 2822
                score: 4.0
                             memory length: 660526
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.43
                        steps: 260
                                       lr: 4e-05
episode: 2823
                score: 4.0
                              memory length: 660823
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.42
                        steps: 297
                                       lr: 4e-05
episode: 2824
                score: 7.0
                             memory length: 661200
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.44
                        steps: 377
                                       lr: 4e-05
episode: 2825
                score: 5.0
                             memory length: 661529
                                                      epsilon:
0.009998020008555413
                        steps: 329
                                       lr: 4e-05
                                                      evaluation reward: 4.39
episode: 2826
                score: 4.0
                              memory length: 661805
                                                      epsilon:
0.009998020008555413
                        steps: 276
                                       lr: 4e-05
                                                      evaluation reward: 4.41
episode: 2827
                score: 5.0
                              memory length: 662085
                                                      epsilon:
0.009998020008555413
                        steps: 280
                                       lr: 4e-05
                                                      evaluation reward: 4.43
episode: 2828
                score: 6.0
                             memory length: 662457
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.46
                        steps: 372
                                       lr: 4e-05
episode: 2829
                score: 5.0
                             memory length: 662750
                                                      epsilon:
0.009998020008555413
                                                     evaluation reward: 4.44
                        steps: 293
                                       lr: 4e-05
episode: 2830
                score: 8.0
                              memory length: 663172
                                                      epsilon:
0.009998020008555413
                        steps: 422
                                       lr: 4e-05
                                                      evaluation reward: 4.49
episode: 2831
                score: 4.0
                             memory length: 663429
                                                      epsilon:
0.009998020008555413
                        steps: 257
                                       lr: 4e-05
                                                      evaluation reward: 4.44
episode: 2832
                score: 5.0
                             memory length: 663739
                                                      epsilon:
0.009998020008555413
                        steps: 310
                                       lr: 4e-05
                                                      evaluation reward: 4.46
episode: 2833
                score: 7.0
                             memory length: 664123
                                                      epsilon:
```

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0.009998020008555413
                        steps: 384
                                                      evaluation reward: 4.44
                                       lr: 4e-05
episode: 2834
                score: 6.0
                             memory length: 664444
                                                      epsilon:
                        steps: 321
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.45
episode: 2835
                score: 6.0
                             memory length: 664796
                                                      epsilon:
0.009998020008555413
                        steps: 352
                                       lr: 4e-05
                                                      evaluation reward: 4.46
episode: 2836
                score: 6.0
                             memory length: 665130
                                                      epsilon:
0.009998020008555413
                        steps: 334
                                       lr: 4e-05
                                                      evaluation reward: 4.49
episode: 2837
                score: 4.0
                             memory length: 665388
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.46
                        steps: 258
                                       lr: 4e-05
                score: 5.0
                                                      epsilon:
episode: 2838
                             memory length: 665699
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.48
                        steps: 311
                                                      epsilon:
episode: 2839
                score: 7.0
                             memory length: 666099
0.009998020008555413
                                                      evaluation reward: 4.5
                        steps: 400
                                       lr: 4e-05
episode: 2840
                score: 2.0
                             memory length: 666280
                                                      epsilon:
0.009998020008555413
                        steps: 181
                                       lr: 4e-05
                                                      evaluation reward: 4.5
episode: 2841
                score: 13.0
                              memory length: 666785
                                                        epsilon:
0.009998020008555413
                        steps: 505
                                       lr: 4e-05
                                                     evaluation reward: 4.61
episode: 2842
                score: 5.0
                             memory length: 667115
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.64
                        steps: 330
episode: 2843
                score: 3.0
                             memory length: 667342
                                                      epsilon:
0.009998020008555413
                        steps: 227
                                       lr: 4e-05
                                                      evaluation reward: 4.64
episode: 2844
                score: 9.0
                             memory length: 667813
                                                      epsilon:
0.009998020008555413
                        steps: 471
                                       lr: 4e-05
                                                      evaluation reward: 4.71
episode: 2845
                score: 6.0
                             memory length: 668171
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.74
                        steps: 358
episode: 2846
                score: 9.0
                             memory length: 668671
                                                      epsilon:
0.009998020008555413
                        steps: 500
                                       lr: 4e-05
                                                      evaluation reward: 4.76
episode: 2847
                score: 5.0
                             memory length: 668956
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.78
                        steps: 285
                                       lr: 4e-05
episode: 2848
                score: 3.0
                             memory length: 669183
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.78
                        steps: 227
                                       lr: 4e-05
episode: 2849
                score: 4.0
                             memory length: 669461
                                                      epsilon:
0.009998020008555413
                        steps: 278
                                       lr: 4e-05
                                                     evaluation reward: 4.79
episode: 2850
                score: 11.0
                              memory length: 669938
                                                        epsilon:
0.009998020008555413
                        steps: 477
                                       lr: 4e-05
                                                      evaluation reward: 4.87
episode: 2851
                score: 3.0
                             memory length: 670166
                                                      epsilon:
0.009998020008555413
                        steps: 228
                                       lr: 4e-05
                                                      evaluation reward: 4.86
episode: 2852
                score: 4.0
                             memory length: 670440
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.84
                        steps: 274
                                       lr: 4e-05
episode: 2853
                score: 2.0
                             memory length: 670637
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 4.83
                        steps: 197
                                       lr: 4e-05
episode: 2854
                score: 5.0
                             memory length: 670948
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.81
                        steps: 311
episode: 2855
                score: 5.0
                             memory length: 671256
                                                      epsilon:
0.009998020008555413
                        steps: 308
                                       lr: 4e-05
                                                      evaluation reward: 4.82
episode: 2856
                score: 4.0
                             memory length: 671530
                                                      epsilon:
0.009998020008555413
                        steps: 274
                                       lr: 4e-05
                                                      evaluation reward: 4.83
episode: 2857
                             memory length: 671928
                score: 8.0
                                                      epsilon:
```

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evaluation reward: 4.87
0.009998020008555413
                        steps: 398
                                       lr: 4e-05
episode: 2858
                score: 6.0
                             memory length: 672270
                                                       epsilon:
                        steps: 342
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.85
                              memory length: 672528
episode: 2859
                score: 4.0
                                                       epsilon:
                        steps: 258
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.83
episode: 2860
                score: 6.0
                             memory length: 672863
                                                       epsilon:
0.009998020008555413
                        steps: 335
                                       lr: 4e-05
                                                      evaluation reward: 4.86
                              memory length: 673120
episode: 2861
                score: 4.0
                                                       epsilon:
0.009998020008555413
                                                      evaluation reward: 4.87
                        steps: 257
                                       lr: 4e-05
                score: 7.0
                                                       epsilon:
episode: 2862
                             memory length: 673474
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.91
                        steps: 354
episode: 2863
                score: 2.0
                              memory length: 673655
                                                       epsilon:
0.009998020008555413
                                                      evaluation reward: 4.89
                        steps: 181
                                       lr: 4e-05
episode: 2864
                score: 5.0
                              memory length: 673960
                                                       epsilon:
0.009998020008555413
                        steps: 305
                                       lr: 4e-05
                                                      evaluation reward: 4.91
episode: 2865
                score: 3.0
                             memory length: 674188
                                                       epsilon:
0.009998020008555413
                        steps: 228
                                       lr: 4e-05
                                                      evaluation reward: 4.89
episode: 2866
                score: 6.0
                             memory length: 674543
                                                       epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.92
                        steps: 355
episode: 2867
                score: 4.0
                             memory length: 674821
                                                       epsilon:
0.009998020008555413
                        steps: 278
                                       lr: 4e-05
                                                      evaluation reward: 4.88
episode: 2868
                score: 3.0
                              memory length: 675052
                                                       epsilon:
0.009998020008555413
                        steps: 231
                                       lr: 4e-05
                                                      evaluation reward: 4.85
episode: 2869
                score: 6.0
                             memory length: 675391
                                                       epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.89
                        steps: 339
episode: 2870
                score: 6.0
                             memory length: 675733
                                                       epsilon:
0.009998020008555413
                        steps: 342
                                       lr: 4e-05
                                                      evaluation reward: 4.91
episode: 2871
                score: 6.0
                              memory length: 676075
                                                       epsilon:
0.009998020008555413
                                                      evaluation reward: 4.95
                        steps: 342
                                       lr: 4e-05
episode: 2872
                score: 5.0
                             memory length: 676384
                                                       epsilon:
                        steps: 309
0.009998020008555413
                                                      evaluation reward: 4.98
                                       lr: 4e-05
episode: 2873
                score: 3.0
                             memory length: 676615
                                                       epsilon:
0.009998020008555413
                        steps: 231
                                       lr: 4e-05
                                                      evaluation reward: 4.98
episode: 2874
                score: 8.0
                              memory length: 677103
                                                       epsilon:
0.009998020008555413
                        steps: 488
                                       lr: 4e-05
                                                      evaluation reward: 5.02
episode: 2875
                score: 4.0
                              memory length: 677365
                                                       epsilon:
0.009998020008555413
                        steps: 262
                                       lr: 4e-05
                                                      evaluation reward: 5.03
episode: 2876
                score: 4.0
                             memory length: 677639
                                                       epsilon:
                                                      evaluation reward: 5.05
0.009998020008555413
                        steps: 274
                                       lr: 4e-05
episode: 2877
                score: 4.0
                             memory length: 677913
                                                       epsilon:
0.009998020008555413
                                                     evaluation reward: 5.06
                        steps: 274
                                       lr: 4e-05
episode: 2878
                score: 3.0
                              memory length: 678162
                                                       epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 5.05
                        steps: 249
episode: 2879
                score: 2.0
                             memory length: 678343
                                                       epsilon:
0.009998020008555413
                        steps: 181
                                                      evaluation reward: 4.91
                                       lr: 4e-05
episode: 2880
                score: 5.0
                              memory length: 678668
                                                       epsilon:
0.009998020008555413
                        steps: 325
                                       lr: 4e-05
                                                      evaluation reward: 4.92
episode: 2881
                             memory length: 678896
                score: 3.0
                                                       epsilon:
```

```
evaluation reward: 4.91
0.009998020008555413
                        steps: 228
                                       lr: 4e-05
episode: 2882
                score: 6.0
                             memory length: 679229
                                                      epsilon:
                        steps: 333
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.94
                score: 10.0
episode: 2883
                              memory length: 679730
                                                        epsilon:
                                                      evaluation reward: 5.02
0.009998020008555413
                        steps: 501
                                       lr: 4e-05
episode: 2884
                score: 6.0
                             memory length: 680074
                                                      epsilon:
0.009998020008555413
                        steps: 344
                                       lr: 4e-05
                                                      evaluation reward: 5.03
episode: 2885
                score: 11.0
                               memory length: 680578
                                                        epsilon:
0.009998020008555413
                                                     evaluation reward: 5.09
                        steps: 504
                                       lr: 4e-05
                score: 5.0
episode: 2886
                             memory length: 680858
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 5.06
                        steps: 280
episode: 2887
                score: 4.0
                              memory length: 681121
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 5.06
                        steps: 263
                                       lr: 4e-05
episode: 2888
                score: 4.0
                              memory length: 681397
                                                      epsilon:
0.009998020008555413
                        steps: 276
                                       lr: 4e-05
                                                      evaluation reward: 5.07
episode: 2889
                score: 2.0
                             memory length: 681577
                                                      epsilon:
0.009998020008555413
                        steps: 180
                                       lr: 4e-05
                                                      evaluation reward: 5.05
episode: 2890
                score: 2.0
                             memory length: 681758
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 5.03
                        steps: 181
episode: 2891
                score: 5.0
                             memory length: 682083
                                                      epsilon:
0.009998020008555413
                        steps: 325
                                       lr: 4e-05
                                                      evaluation reward: 5.02
episode: 2892
                score: 8.0
                              memory length: 682502
                                                      epsilon:
0.009998020008555413
                        steps: 419
                                       lr: 4e-05
                                                      evaluation reward: 5.07
episode: 2893
                score: 3.0
                             memory length: 682733
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 5.07
                        steps: 231
episode: 2894
                score: 6.0
                             memory length: 683062
                                                      epsilon:
0.009998020008555413
                        steps: 329
                                       lr: 4e-05
                                                      evaluation reward: 5.1
episode: 2895
                score: 4.0
                              memory length: 683324
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 5.11
                        steps: 262
                                       lr: 4e-05
episode: 2896
                score: 5.0
                             memory length: 683604
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 5.12
                        steps: 280
                                       lr: 4e-05
episode: 2897
                score: 5.0
                             memory length: 683917
                                                      epsilon:
0.009998020008555413
                        steps: 313
                                       lr: 4e-05
                                                      evaluation reward: 5.13
episode: 2898
                score: 4.0
                              memory length: 684160
                                                      epsilon:
0.009998020008555413
                        steps: 243
                                       lr: 4e-05
                                                      evaluation reward: 5.15
episode: 2899
                score: 3.0
                              memory length: 684391
                                                      epsilon:
0.009998020008555413
                        steps: 231
                                       lr: 4e-05
                                                      evaluation reward: 5.14
episode: 2900
                score: 7.0
                             memory length: 684770
                                                      epsilon:
                                                      evaluation reward: 5.13
0.009998020008555413
                        steps: 379
                                       lr: 4e-05
episode: 2901
                score: 2.0
                             memory length: 684951
                                                      epsilon:
0.009998020008555413
                                                     evaluation reward: 5.11
                        steps: 181
                                       lr: 4e-05
episode: 2902
                score: 4.0
                              memory length: 685229
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 5.12
                        steps: 278
episode: 2903
                score: 3.0
                             memory length: 685478
                                                      epsilon:
0.009998020008555413
                        steps: 249
                                       lr: 4e-05
                                                      evaluation reward: 5.08
episode: 2904
                score: 8.0
                             memory length: 685755
                                                      epsilon:
0.009998020008555413
                        steps: 277
                                       lr: 4e-05
                                                      evaluation reward: 5.12
episode: 2905
                score: 5.0
                             memory length: 686086
                                                      epsilon:
```

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evaluation reward: 5.14
0.009998020008555413
                        steps: 331
                                       lr: 4e-05
episode: 2906
                score: 6.0
                             memory length: 686407
                                                      epsilon:
                        steps: 321
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 5.13
episode: 2907
                score: 3.0
                              memory length: 686655
                                                      epsilon:
0.009998020008555413
                        steps: 248
                                       lr: 4e-05
                                                      evaluation reward: 5.05
episode: 2908
                score: 2.0
                             memory length: 686852
                                                      epsilon:
0.009998020008555413
                        steps: 197
                                       lr: 4e-05
                                                      evaluation reward: 5.04
episode: 2909
                score: 7.0
                              memory length: 687228
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 5.06
                        steps: 376
                                       lr: 4e-05
                                                      epsilon:
episode: 2910
                score: 2.0
                             memory length: 687409
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 5.02
                        steps: 181
                                                      epsilon:
episode: 2911
                score: 5.0
                              memory length: 687733
0.009998020008555413
                                                      evaluation reward: 5.0
                        steps: 324
                                       lr: 4e-05
episode: 2912
                score: 4.0
                              memory length: 688030
                                                      epsilon:
0.009998020008555413
                        steps: 297
                                       lr: 4e-05
                                                      evaluation reward: 4.98
episode: 2913
                score: 5.0
                             memory length: 688310
                                                      epsilon:
0.009998020008555413
                        steps: 280
                                       lr: 4e-05
                                                      evaluation reward: 4.98
episode: 2914
                score: 7.0
                             memory length: 688661
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.99
                        steps: 351
episode: 2915
                score: 4.0
                             memory length: 688937
                                                      epsilon:
0.009998020008555413
                        steps: 276
                                       lr: 4e-05
                                                      evaluation reward: 5.01
episode: 2916
                score: 6.0
                              memory length: 689294
                                                      epsilon:
0.009998020008555413
                        steps: 357
                                       lr: 4e-05
                                                      evaluation reward: 5.02
episode: 2917
                score: 8.0
                             memory length: 689675
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 5.06
                        steps: 381
episode: 2918
                score: 8.0
                             memory length: 690078
                                                      epsilon:
0.009998020008555413
                        steps: 403
                                       lr: 4e-05
                                                      evaluation reward: 5.1
episode: 2919
                score: 4.0
                              memory length: 690321
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 5.09
                        steps: 243
                                       lr: 4e-05
episode: 2920
                score: 5.0
                             memory length: 690601
                                                      epsilon:
0.009998020008555413
                                                      evaluation reward: 5.1
                        steps: 280
                                       lr: 4e-05
episode: 2921
                score: 4.0
                             memory length: 690875
                                                      epsilon:
0.009998020008555413
                        steps: 274
                                       lr: 4e-05
                                                      evaluation reward: 5.1
episode: 2922
                score: 2.0
                              memory length: 691056
                                                      epsilon:
0.009998020008555413
                        steps: 181
                                       lr: 4e-05
                                                      evaluation reward: 5.08
episode: 2923
                score: 4.0
                             memory length: 691315
                                                      epsilon:
0.009998020008555413
                        steps: 259
                                       lr: 4e-05
                                                      evaluation reward: 5.08
episode: 2924
                score: 6.0
                             memory length: 691643
                                                      epsilon:
                                                      evaluation reward: 5.07
0.009998020008555413
                        steps: 328
                                       lr: 4e-05
episode: 2925
                score: 6.0
                             memory length: 691988
                                                      epsilon:
0.009998020008555413
                                                     evaluation reward: 5.08
                        steps: 345
                                       lr: 4e-05
episode: 2926
                score: 4.0
                              memory length: 692267
                                                      epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 5.08
                        steps: 279
episode: 2927
                score: 10.0
                              memory length: 692762
                                                        epsilon:
0.009998020008555413
                        steps: 495
                                       lr: 4e-05
                                                     evaluation reward: 5.13
episode: 2928
                score: 7.0
                              memory length: 693186
                                                      epsilon:
0.009998020008555413
                        steps: 424
                                       lr: 4e-05
                                                      evaluation reward: 5.14
episode: 2929
                score: 3.0
                             memory length: 693435
                                                      epsilon:
```

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0.009998020008555413
                                                      evaluation reward: 5.12
                        steps: 249
                                       lr: 4e-05
episode: 2930
                score: 4.0
                             memory length: 693713
                                                       epsilon:
                        steps: 278
0.009998020008555413
                                                      evaluation reward: 5.08
                                       lr: 4e-05
                              memory length: 694105
episode: 2931
                score: 8.0
                                                       epsilon:
                        steps: 392
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 5.12
episode: 2932
                score: 4.0
                             memory length: 694381
                                                       epsilon:
0.009998020008555413
                        steps: 276
                                       lr: 4e-05
                                                      evaluation reward: 5.11
episode: 2933
                score: 4.0
                              memory length: 694620
                                                       epsilon:
0.009998020008555413
                                                      evaluation reward: 5.08
                        steps: 239
                                       lr: 4e-05
                score: 6.0
                                                       epsilon:
episode: 2934
                             memory length: 695017
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 5.08
                        steps: 397
episode: 2935
                score: 2.0
                              memory length: 695198
                                                       epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 5.04
                        steps: 181
episode: 2936
                score: 7.0
                              memory length: 695593
                                                       epsilon:
0.009998020008555413
                        steps: 395
                                       lr: 4e-05
                                                      evaluation reward: 5.05
episode: 2937
                score: 5.0
                             memory length: 695873
                                                       epsilon:
0.009998020008555413
                        steps: 280
                                       lr: 4e-05
                                                      evaluation reward: 5.06
episode: 2938
                score: 4.0
                             memory length: 696170
                                                       epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 5.05
                        steps: 297
episode: 2939
                score: 3.0
                             memory length: 696401
                                                       epsilon:
0.009998020008555413
                        steps: 231
                                       lr: 4e-05
                                                      evaluation reward: 5.01
episode: 2940
                score: 4.0
                              memory length: 696679
                                                       epsilon:
0.009998020008555413
                        steps: 278
                                       lr: 4e-05
                                                      evaluation reward: 5.03
episode: 2941
                score: 3.0
                             memory length: 696910
                                                       epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.93
                        steps: 231
episode: 2942
                score: 3.0
                              memory length: 697141
                                                       epsilon:
0.009998020008555413
                        steps: 231
                                       lr: 4e-05
                                                      evaluation reward: 4.91
episode: 2943
                score: 7.0
                              memory length: 697512
                                                       epsilon:
0.009998020008555413
                                                      evaluation reward: 4.95
                        steps: 371
                                       lr: 4e-05
episode: 2944
                score: 4.0
                             memory length: 697810
                                                       epsilon:
0.009998020008555413
                                                      evaluation reward: 4.9
                        steps: 298
                                       lr: 4e-05
episode: 2945
                score: 5.0
                             memory length: 698112
                                                       epsilon:
0.009998020008555413
                        steps: 302
                                       lr: 4e-05
                                                      evaluation reward: 4.89
episode: 2946
                score: 2.0
                              memory length: 698293
                                                       epsilon:
0.009998020008555413
                        steps: 181
                                       lr: 4e-05
                                                      evaluation reward: 4.82
episode: 2947
                score: 3.0
                              memory length: 698524
                                                       epsilon:
0.009998020008555413
                        steps: 231
                                       lr: 4e-05
                                                      evaluation reward: 4.8
episode: 2948
                score: 6.0
                             memory length: 698864
                                                       epsilon:
                                                      evaluation reward: 4.83
0.009998020008555413
                        steps: 340
                                       lr: 4e-05
                score: 6.0
episode: 2949
                             memory length: 699173
                                                       epsilon:
0.009998020008555413
                                                     evaluation reward: 4.85
                        steps: 309
                                       lr: 4e-05
episode: 2950
                score: 4.0
                              memory length: 699450
                                                       epsilon:
0.009998020008555413
                                       lr: 4e-05
                                                      evaluation reward: 4.78
                        steps: 277
episode: 2951
                score: 12.0
                              memory length: 699883
                                                        epsilon:
0.009998020008555413
                        steps: 433
                                       lr: 4e-05
                                                     evaluation reward: 4.87
episode: 2952
                score: 3.0
                             memory length: 700111
                                                       epsilon:
0.009998020008555413
                        steps: 228
                                       lr: 1.6000000000000003e-05
                                                                       evaluation
reward: 4.86
```

memory length: 700342 episode: 2953 score: 3.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 231 evaluation reward: 4.87 episode: 2954 score: 4.0 memory length: 700604 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 262 evaluation reward: 4.86 episode: 2955 score: 6.0 memory length: 700936 epsilon: 0.009998020008555413 steps: 332 lr: 1.6000000000000003e-05 evaluation reward: 4.87 episode: 2956 score: 5.0 memory length: 701243 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 307 evaluation reward: 4.88 episode: 2957 memory length: 701440 score: 2.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 197 evaluation reward: 4.82 memory length: 701774 episode: 2958 score: 7.0 epsilon: 0.009998020008555413 steps: 334 lr: 1.600000000000003e-05 evaluation reward: 4.83 episode: 2959 score: 9.0 memory length: 702224 epsilon: 0.009998020008555413 steps: 450 lr: 1.6000000000000003e-05 evaluation reward: 4.88 episode: 2960 score: 3.0 memory length: 702468 epsilon: 0.009998020008555413 steps: 244 lr: 1.6000000000000003e-05 evaluation reward: 4.85 episode: 2961 score: 5.0 memory length: 702748 epsilon: 0.009998020008555413 lr: 1.600000000000003e-05 steps: 280 evaluation reward: 4.86 episode: 2962 score: 4.0 memory length: 703007 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 259 evaluation reward: 4.83 memory length: 703360 episode: 2963 score: 7.0 epsilon: 0.009998020008555413 steps: 353 lr: 1.6000000000000003e-05 evaluation reward: 4.88 episode: 2964 score: 3.0 memory length: 703572 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 212 evaluation reward: 4.86 episode: 2965 score: 8.0 memory length: 703849 epsilon: 0.009998020008555413 steps: 277 lr: 1.6000000000000003e-05 evaluation reward: 4.91 episode: 2966 score: 13.0 memory length: 704332 epsilon: 0.009998020008555413 steps: 483 lr: 1.6000000000000003e-05 evaluation reward: 4.98 episode: 2967 score: 5.0 memory length: 704658 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 326 evaluation reward: 4.99 episode: 2968 score: 5.0 memory length: 704965 epsilon: 0.009998020008555413 steps: 307 lr: 1.6000000000000003e-05 evaluation reward: 5.01

episode: 2969 score: 4.0 memory length: 705239 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 274 evaluation reward: 4.99 episode: 2970 score: 6.0 memory length: 705595 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 356 evaluation reward: 4.99 episode: 2971 score: 4.0 memory length: 705854 epsilon: 0.009998020008555413 steps: 259 lr: 1.6000000000000003e-05 evaluation reward: 4.97 epsilon: episode: 2972 score: 6.0 memory length: 706172 lr: 1.6000000000000003e-05 0.009998020008555413 steps: 318 evaluation reward: 4.98 episode: 2973 memory length: 706465 score: 5.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 293 evaluation reward: 5.0 memory length: 706740 episode: 2974 score: 4.0 epsilon: 0.009998020008555413 steps: 275 lr: 1.600000000000003e-05 evaluation reward: 4.96 episode: 2975 score: 5.0 memory length: 707047 epsilon: 0.009998020008555413 steps: 307 lr: 1.6000000000000003e-05 evaluation reward: 4.97 episode: 2976 score: 4.0 memory length: 707290 epsilon: 0.009998020008555413 steps: 243 lr: 1.6000000000000003e-05 evaluation reward: 4.97 episode: 2977 score: 5.0 memory length: 707600 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 310 evaluation reward: 4.98 episode: 2978 score: 4.0 memory length: 707857 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 257 evaluation reward: 4.99 episode: 2979 score: 2.0 memory length: 708038 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.99 episode: 2980 score: 10.0 memory length: 708411 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 373 evaluation reward: 5.04 episode: 2981 score: 4.0 memory length: 708654 0.009998020008555413 steps: 243 lr: 1.6000000000000003e-05 evaluation reward: 5.05 episode: 2982 score: 6.0 memory length: 709006 epsilon: 0.009998020008555413 steps: 352 lr: 1.6000000000000003e-05 evaluation reward: 5.05 episode: 2983 score: 7.0 memory length: 709411 epsilon: 0.009998020008555413 steps: 405 lr: 1.6000000000000003e-05 evaluation reward: 5.02 episode: 2984 score: 6.0 memory length: 709728 epsilon: 0.009998020008555413 steps: 317 lr: 1.6000000000000003e-05 evaluation reward: 5.02

memory length: 710007 episode: 2985 score: 4.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 279 evaluation reward: 4.95 episode: 2986 score: 7.0 memory length: 710362 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 355 evaluation reward: 4.97 episode: 2987 score: 3.0 memory length: 710611 epsilon: 0.009998020008555413 steps: 249 lr: 1.6000000000000003e-05 evaluation reward: 4.96 epsilon: episode: 2988 score: 6.0 memory length: 710938 lr: 1.6000000000000003e-05 0.009998020008555413 steps: 327 evaluation reward: 4.98 episode: 2989 memory length: 711169 score: 3.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 231 evaluation reward: 4.99 memory length: 711531 episode: 2990 score: 6.0 epsilon: 0.009998020008555413 steps: 362 lr: 1.600000000000003e-05 evaluation reward: 5.03 episode: 2991 score: 12.0 memory length: 711992 epsilon: 0.009998020008555413 steps: 461 lr: 1.6000000000000003e-05 evaluation reward: 5.1 episode: 2992 score: 2.0 memory length: 712173 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 5.04 episode: 2993 score: 5.0 memory length: 712464 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 291 evaluation reward: 5.06 episode: 2994 score: 5.0 memory length: 712755 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 291 evaluation reward: 5.05 memory length: 713045 episode: 2995 score: 5.0 epsilon: 0.009998020008555413 steps: 290 lr: 1.6000000000000003e-05 evaluation reward: 5.06 episode: 2996 score: 6.0 memory length: 713341 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 296 evaluation reward: 5.07 episode: 2997 score: 4.0 memory length: 713584 epsilon: 0.009998020008555413 steps: 243 lr: 1.6000000000000003e-05 evaluation reward: 5.06 episode: 2998 score: 3.0 memory length: 713811 epsilon: 0.009998020008555413 steps: 227 lr: 1.6000000000000003e-05 evaluation reward: 5.05 episode: 2999 score: 6.0 memory length: 714152 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 341 evaluation reward: 5.08 episode: 3000 score: 2.0 memory length: 714332 epsilon: 0.009998020008555413 steps: 180 lr: 1.6000000000000003e-05 evaluation reward: 5.03

memory length: 714592 episode: 3001 score: 4.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 260 evaluation reward: 5.05 episode: 3002 score: 2.0 memory length: 714773 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 181 evaluation reward: 5.03 episode: 3003 score: 3.0 memory length: 715005 epsilon: 0.009998020008555413 steps: 232 lr: 1.6000000000000003e-05 evaluation reward: 5.03 episode: 3004 score: 3.0 memory length: 715234 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 229 evaluation reward: 4.98 episode: 3005 memory length: 715540 score: 9.0 epsilon: steps: 306 lr: 1.6000000000000003e-05 0.009998020008555413 evaluation reward: 5.02 memory length: 715846 episode: 3006 score: 9.0 epsilon: 0.009998020008555413 steps: 306 lr: 1.600000000000003e-05 evaluation reward: 5.05 episode: 3007 score: 7.0 memory length: 716215 epsilon: 0.009998020008555413 steps: 369 lr: 1.6000000000000003e-05 evaluation reward: 5.09 episode: 3008 score: 4.0 memory length: 716471 epsilon: 0.009998020008555413 steps: 256 lr: 1.6000000000000003e-05 evaluation reward: 5.11 episode: 3009 memory length: 716652 score: 2.0 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 181 evaluation reward: 5.06 episode: 3010 score: 9.0 memory length: 716979 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 327 evaluation reward: 5.13 memory length: 717287 episode: 3011 score: 5.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 308 evaluation reward: 5.13 episode: 3012 score: 2.0 memory length: 717468 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 181 evaluation reward: 5.11 score: 2.0 episode: 3013 memory length: 717665 0.009998020008555413 steps: 197 lr: 1.6000000000000003e-05 evaluation reward: 5.08 episode: 3014 score: 6.0 memory length: 717988 epsilon: 0.009998020008555413 steps: 323 lr: 1.6000000000000003e-05 evaluation reward: 5.07 episode: 3015 score: 3.0 memory length: 718220 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 232 evaluation reward: 5.06 episode: 3016 score: 2.0 memory length: 718417 epsilon: 0.009998020008555413 steps: 197 lr: 1.6000000000000003e-05 evaluation reward: 5.02

memory length: 718684 episode: 3017 score: 5.0 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 267 evaluation reward: 4.99 episode: 3018 score: 5.0 memory length: 718994 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 310 evaluation reward: 4.96 episode: 3019 score: 9.0 memory length: 719322 epsilon: 0.009998020008555413 steps: 328 lr: 1.6000000000000003e-05 evaluation reward: 5.01 episode: 3020 score: 5.0 memory length: 719615 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 293 evaluation reward: 5.01 episode: 3021 memory length: 719872 score: 4.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 257 evaluation reward: 5.01 memory length: 720175 episode: 3022 score: 5.0 epsilon: 0.009998020008555413 steps: 303 lr: 1.600000000000003e-05 evaluation reward: 5.04 episode: 3023 score: 5.0 memory length: 720482 epsilon: 0.009998020008555413 steps: 307 lr: 1.6000000000000003e-05 evaluation reward: 5.05 episode: 3024 score: 4.0 memory length: 720760 epsilon: 0.009998020008555413 steps: 278 lr: 1.6000000000000003e-05 evaluation reward: 5.03 episode: 3025 memory length: 720941 score: 2.0 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 181 evaluation reward: 4.99 episode: 3026 score: 9.0 memory length: 721385 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 444 evaluation reward: 5.04 memory length: 721695 episode: 3027 score: 5.0 epsilon: 0.009998020008555413 steps: 310 lr: 1.6000000000000003e-05 evaluation reward: 4.99 episode: 3028 score: 3.0 memory length: 721942 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 247 evaluation reward: 4.95 score: 3.0 episode: 3029 memory length: 722169 epsilon: 0.009998020008555413 steps: 227 lr: 1.6000000000000003e-05 evaluation reward: 4.95 episode: 3030 score: 5.0 memory length: 722454 epsilon: 0.009998020008555413 steps: 285 lr: 1.6000000000000003e-05 evaluation reward: 4.96 episode: 3031 score: 5.0 memory length: 722775 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 321 evaluation reward: 4.93 episode: 3032 score: 4.0 memory length: 723048 epsilon: 0.009998020008555413 steps: 273 lr: 1.6000000000000003e-05 evaluation reward: 4.93

episode: 3033 score: 2.0 memory length: 723229 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 181 evaluation reward: 4.91 episode: 3034 score: 5.0 memory length: 723534 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 305 evaluation reward: 4.9 episode: 3035 score: 5.0 memory length: 723844 epsilon: 0.009998020008555413 steps: 310 lr: 1.6000000000000003e-05 evaluation reward: 4.93 episode: 3036 score: 2.0 memory length: 724025 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 181 evaluation reward: 4.88 episode: 3037 memory length: 724257 score: 3.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 232 evaluation reward: 4.86 memory length: 724518 episode: 3038 score: 4.0 epsilon: 0.009998020008555413 steps: 261 lr: 1.600000000000003e-05 evaluation reward: 4.86 episode: 3039 score: 2.0 memory length: 724699 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.85 episode: 3040 score: 2.0 memory length: 724880 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.83 episode: 3041 score: 9.0 memory length: 725186 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 306 evaluation reward: 4.89 episode: 3042 score: 2.0 memory length: 725367 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 181 evaluation reward: 4.88 episode: 3043 score: 2.0 memory length: 725548 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.83 episode: 3044 score: 7.0 memory length: 725918 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 370 evaluation reward: 4.86 episode: 3045 score: 3.0 memory length: 726146 0.009998020008555413 steps: 228 lr: 1.6000000000000003e-05 evaluation reward: 4.84 episode: 3046 score: 5.0 memory length: 726451 epsilon: 0.009998020008555413 steps: 305 lr: 1.6000000000000003e-05 evaluation reward: 4.87 episode: 3047 score: 3.0 memory length: 726680 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 229 evaluation reward: 4.87 episode: 3048 score: 3.0 memory length: 726911 epsilon: 0.009998020008555413 steps: 231 lr: 1.6000000000000003e-05 evaluation reward: 4.84

memory length: 727220 episode: 3049 score: 5.0 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 309 evaluation reward: 4.83 episode: 3050 score: 2.0 memory length: 727401 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 181 evaluation reward: 4.81 episode: 3051 score: 5.0 memory length: 727708 epsilon: 0.009998020008555413 steps: 307 lr: 1.6000000000000003e-05 evaluation reward: 4.74 episode: 3052 score: 5.0 memory length: 728031 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 323 evaluation reward: 4.76 episode: 3053 memory length: 728367 score: 6.0 epsilon: steps: 336 lr: 1.6000000000000003e-05 0.009998020008555413 evaluation reward: 4.79 memory length: 728625 episode: 3054 score: 4.0 epsilon: 0.009998020008555413 steps: 258 lr: 1.600000000000003e-05 evaluation reward: 4.79 episode: 3055 score: 5.0 memory length: 728930 epsilon: 0.009998020008555413 steps: 305 lr: 1.6000000000000003e-05 evaluation reward: 4.78 episode: 3056 score: 8.0 memory length: 729207 epsilon: 0.009998020008555413 steps: 277 lr: 1.6000000000000003e-05 evaluation reward: 4.81 episode: 3057 score: 4.0 memory length: 729468 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 261 evaluation reward: 4.83 episode: 3058 score: 5.0 memory length: 729762 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 294 evaluation reward: 4.81 memory length: 730088 episode: 3059 score: 5.0 epsilon: 0.009998020008555413 steps: 326 lr: 1.6000000000000003e-05 evaluation reward: 4.77 episode: 3060 score: 4.0 memory length: 730366 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 278 evaluation reward: 4.78 episode: 3061 score: 5.0 memory length: 730676 0.009998020008555413 steps: 310 lr: 1.6000000000000003e-05 evaluation reward: 4.78 episode: 3062 score: 2.0 memory length: 730857 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.76 episode: 3063 score: 5.0 memory length: 731167 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 310 evaluation reward: 4.74 episode: 3064 score: 3.0 memory length: 731377 epsilon: 0.009998020008555413 steps: 210 lr: 1.6000000000000003e-05 evaluation reward: 4.74

memory length: 731604 episode: 3065 score: 3.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 227 evaluation reward: 4.69 episode: 3066 score: 3.0 memory length: 731813 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 209 evaluation reward: 4.59 episode: 3067 score: 2.0 memory length: 731994 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.56 episode: 3068 score: 5.0 memory length: 732302 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 308 evaluation reward: 4.56 episode: 3069 memory length: 732792 score: 11.0 epsilon: steps: 490 lr: 1.6000000000000003e-05 0.009998020008555413 evaluation reward: 4.63 memory length: 733152 episode: 3070 score: 8.0 epsilon: 0.009998020008555413 steps: 360 lr: 1.600000000000003e-05 evaluation reward: 4.65 episode: 3071 score: 8.0 memory length: 733512 epsilon: 0.009998020008555413 steps: 360 lr: 1.6000000000000003e-05 evaluation reward: 4.69 episode: 3072 score: 11.0 memory length: 733971 epsilon: 0.009998020008555413 steps: 459 lr: 1.6000000000000003e-05 evaluation reward: 4.74 episode: 3073 score: 5.0 memory length: 734251 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 280 evaluation reward: 4.74 episode: 3074 score: 10.0 memory length: 734670 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 419 evaluation reward: 4.8 memory length: 735022 episode: 3075 score: 8.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 352 evaluation reward: 4.83 episode: 3076 score: 6.0 memory length: 735349 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 327 evaluation reward: 4.85 episode: 3077 score: 8.0 memory length: 735701 0.009998020008555413 steps: 352 lr: 1.6000000000000003e-05 evaluation reward: 4.88 episode: 3078 score: 7.0 memory length: 736046 epsilon: 0.009998020008555413 steps: 345 lr: 1.6000000000000003e-05 evaluation reward: 4.91 episode: 3079 score: 3.0 memory length: 736275 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 229 evaluation reward: 4.92 episode: 3080 score: 5.0 memory length: 736550 epsilon: 0.009998020008555413 steps: 275 lr: 1.6000000000000003e-05 evaluation reward: 4.87

episode: 3081 score: 2.0 memory length: 736731 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 181 evaluation reward: 4.85 episode: 3082 score: 6.0 memory length: 737104 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 373 evaluation reward: 4.85 episode: 3083 score: 6.0 memory length: 737475 epsilon: 0.009998020008555413 steps: 371 lr: 1.6000000000000003e-05 evaluation reward: 4.84 episode: 3084 score: 9.0 memory length: 737948 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 473 evaluation reward: 4.87 episode: 3085 memory length: 738295 score: 5.0 epsilon: steps: 347 lr: 1.6000000000000003e-05 0.009998020008555413 evaluation reward: 4.88 memory length: 738648 episode: 3086 score: 6.0 epsilon: 0.009998020008555413 steps: 353 lr: 1.600000000000003e-05 evaluation reward: 4.87 episode: 3087 score: 4.0 memory length: 738926 epsilon: 0.009998020008555413 steps: 278 lr: 1.6000000000000003e-05 evaluation reward: 4.88 episode: 3088 score: 4.0 memory length: 739206 epsilon: 0.009998020008555413 steps: 280 lr: 1.6000000000000003e-05 evaluation reward: 4.86 episode: 3089 score: 2.0 memory length: 739407 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 201 evaluation reward: 4.85 episode: 3090 score: 4.0 memory length: 739683 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 276 evaluation reward: 4.83 memory length: 740035 episode: 3091 score: 7.0 epsilon: 0.009998020008555413 steps: 352 lr: 1.6000000000000003e-05 evaluation reward: 4.78 episode: 3092 score: 4.0 memory length: 740276 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 241 evaluation reward: 4.8 episode: 3093 score: 3.0 memory length: 740485 0.009998020008555413 steps: 209 lr: 1.6000000000000003e-05 evaluation reward: 4.78 episode: 3094 score: 12.0 memory length: 740787 epsilon: 0.009998020008555413 steps: 302 lr: 1.6000000000000003e-05 evaluation reward: 4.85 episode: 3095 score: 3.0 memory length: 741018 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 231 evaluation reward: 4.83 episode: 3096 score: 2.0 memory length: 741199 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.79

memory length: 741484 episode: 3097 score: 5.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 285 evaluation reward: 4.8 episode: 3098 score: 8.0 memory length: 741844 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 360 evaluation reward: 4.85 episode: 3099 score: 5.0 memory length: 742157 epsilon: 0.009998020008555413 steps: 313 lr: 1.6000000000000003e-05 evaluation reward: 4.84 episode: 3100 score: 2.0 memory length: 742338 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 181 evaluation reward: 4.84 episode: 3101 memory length: 742583 score: 3.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 245 evaluation reward: 4.83 memory length: 742832 episode: 3102 score: 3.0 epsilon: 0.009998020008555413 steps: 249 lr: 1.600000000000003e-05 evaluation reward: 4.84 episode: 3103 score: 4.0 memory length: 743073 epsilon: 0.009998020008555413 steps: 241 lr: 1.6000000000000003e-05 evaluation reward: 4.85 episode: 3104 score: 5.0 memory length: 743353 epsilon: 0.009998020008555413 steps: 280 lr: 1.6000000000000003e-05 evaluation reward: 4.87 episode: 3105 score: 8.0 memory length: 743630 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 277 evaluation reward: 4.86 episode: 3106 score: 2.0 memory length: 743811 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 181 evaluation reward: 4.79 memory length: 744008 episode: 3107 score: 2.0 epsilon: 0.009998020008555413 steps: 197 lr: 1.6000000000000003e-05 evaluation reward: 4.74 episode: 3108 score: 3.0 memory length: 744217 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 209 evaluation reward: 4.73 score: 5.0 episode: 3109 memory length: 744511 0.009998020008555413 steps: 294 lr: 1.6000000000000003e-05 evaluation reward: 4.76 episode: 3110 score: 4.0 memory length: 744772 epsilon: 0.009998020008555413 steps: 261 lr: 1.6000000000000003e-05 evaluation reward: 4.71 episode: 3111 score: 3.0 memory length: 745000 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 228 evaluation reward: 4.69 episode: 3112 score: 5.0 memory length: 745294 epsilon: 0.009998020008555413 steps: 294 lr: 1.6000000000000003e-05 evaluation reward: 4.72

memory length: 745535 episode: 3113 score: 4.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 241 evaluation reward: 4.74 episode: 3114 score: 10.0 memory length: 745910 epsilon: 0.009998020008555413 steps: 375 lr: 1.6000000000000003e-05 evaluation reward: 4.78 episode: 3115 score: 3.0 memory length: 746137 epsilon: 0.009998020008555413 steps: 227 lr: 1.6000000000000003e-05 evaluation reward: 4.78 episode: 3116 score: 3.0 memory length: 746383 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 246 evaluation reward: 4.79 episode: 3117 memory length: 746706 score: 6.0 epsilon: 0.009998020008555413 steps: 323 lr: 1.6000000000000003e-05 evaluation reward: 4.8 memory length: 747047 episode: 3118 score: 5.0 epsilon: 0.009998020008555413 steps: 341 lr: 1.600000000000003e-05 evaluation reward: 4.8 episode: 3119 score: 5.0 memory length: 747388 epsilon: 0.009998020008555413 steps: 341 lr: 1.600000000000003e-05 evaluation reward: 4.76 episode: 3120 score: 2.0 memory length: 747569 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.73 episode: 3121 memory length: 747750 score: 2.0 epsilon: 0.009998020008555413 steps: 181 lr: 1.600000000000003e-05 evaluation reward: 4.71 episode: 3122 score: 3.0 memory length: 747960 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 210 evaluation reward: 4.69 memory length: 748247 episode: 3123 score: 5.0 epsilon: 0.009998020008555413 steps: 287 lr: 1.6000000000000003e-05 evaluation reward: 4.69 episode: 3124 score: 3.0 memory length: 748490 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 243 evaluation reward: 4.68 score: 5.0 episode: 3125 memory length: 748813 0.009998020008555413 steps: 323 lr: 1.6000000000000003e-05 evaluation reward: 4.71 episode: 3126 score: 2.0 memory length: 748994 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.64 episode: 3127 score: 8.0 memory length: 749423 0.009998020008555413 steps: 429 lr: 1.6000000000000003e-05 evaluation reward: 4.67 episode: 3128 score: 4.0 memory length: 749666 epsilon: 0.009998020008555413 steps: 243 lr: 1.6000000000000003e-05 evaluation reward: 4.68

memory length: 749969 episode: 3129 score: 6.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 303 evaluation reward: 4.71 episode: 3130 score: 3.0 memory length: 750200 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 231 evaluation reward: 4.69 episode: 3131 score: 3.0 memory length: 750432 epsilon: 0.009998020008555413 steps: 232 lr: 1.6000000000000003e-05 evaluation reward: 4.67 episode: 3132 score: 5.0 memory length: 750722 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 290 evaluation reward: 4.68 episode: 3133 memory length: 751016 score: 5.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 294 evaluation reward: 4.71 memory length: 751368 episode: 3134 score: 8.0 epsilon: 0.009998020008555413 steps: 352 lr: 1.600000000000003e-05 evaluation reward: 4.74 episode: 3135 score: 2.0 memory length: 751549 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.71 episode: 3136 score: 6.0 memory length: 751942 epsilon: 0.009998020008555413 steps: 393 lr: 1.6000000000000003e-05 evaluation reward: 4.75 episode: 3137 score: 3.0 memory length: 752150 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 208 evaluation reward: 4.75 episode: 3138 score: 9.0 memory length: 752559 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 409 evaluation reward: 4.8 episode: 3139 score: 5.0 memory length: 752866 epsilon: 0.009998020008555413 steps: 307 lr: 1.6000000000000003e-05 evaluation reward: 4.83 episode: 3140 score: 5.0 memory length: 753173 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 307 evaluation reward: 4.86 episode: 3141 score: 4.0 memory length: 753451 0.009998020008555413 steps: 278 lr: 1.6000000000000003e-05 evaluation reward: 4.81 episode: 3142 score: 4.0 memory length: 753710 epsilon: 0.009998020008555413 steps: 259 lr: 1.6000000000000003e-05 evaluation reward: 4.83 episode: 3143 score: 9.0 memory length: 754117 0.009998020008555413 steps: 407 lr: 1.6000000000000003e-05 evaluation reward: 4.9 episode: 3144 score: 3.0 memory length: 754344 epsilon: 0.009998020008555413 steps: 227 lr: 1.6000000000000003e-05 evaluation reward: 4.86

memory length: 754600 episode: 3145 score: 4.0 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 256 evaluation reward: 4.87 episode: 3146 score: 4.0 memory length: 754861 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 261 evaluation reward: 4.86 episode: 3147 score: 6.0 memory length: 755206 epsilon: 0.009998020008555413 steps: 345 lr: 1.6000000000000003e-05 evaluation reward: 4.89 epsilon: episode: 3148 score: 3.0 memory length: 755436 lr: 1.6000000000000003e-05 0.009998020008555413 steps: 230 evaluation reward: 4.89 episode: 3149 memory length: 755646 score: 3.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 210 evaluation reward: 4.87 memory length: 756041 episode: 3150 score: 7.0 epsilon: 0.009998020008555413 steps: 395 lr: 1.600000000000003e-05 evaluation reward: 4.92 episode: 3151 score: 5.0 memory length: 756368 epsilon: 0.009998020008555413 steps: 327 lr: 1.6000000000000003e-05 evaluation reward: 4.92 episode: 3152 score: 5.0 memory length: 756710 epsilon: 0.009998020008555413 steps: 342 lr: 1.6000000000000003e-05 evaluation reward: 4.92 episode: 3153 score: 7.0 memory length: 757114 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 404 evaluation reward: 4.93 episode: 3154 score: 7.0 memory length: 757466 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 352 evaluation reward: 4.96 episode: 3155 score: 5.0 memory length: 757759 epsilon: 0.009998020008555413 steps: 293 lr: 1.6000000000000003e-05 evaluation reward: 4.96 episode: 3156 score: 7.0 memory length: 758152 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 393 evaluation reward: 4.95 episode: 3157 score: 3.0 memory length: 758381 0.009998020008555413 steps: 229 lr: 1.6000000000000003e-05 evaluation reward: 4.94 episode: 3158 score: 4.0 memory length: 758624 epsilon: 0.009998020008555413 steps: 243 lr: 1.6000000000000003e-05 evaluation reward: 4.93 episode: 3159 score: 4.0 memory length: 758883 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 259 evaluation reward: 4.92 episode: 3160 score: 8.0 memory length: 759285 epsilon: 0.009998020008555413 steps: 402 lr: 1.6000000000000003e-05 evaluation reward: 4.96

memory length: 759560 episode: 3161 score: 4.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 275 evaluation reward: 4.95 episode: 3162 score: 6.0 memory length: 759887 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 327 evaluation reward: 4.99 episode: 3163 score: 7.0 memory length: 760254 epsilon: 0.009998020008555413 steps: 367 lr: 1.6000000000000003e-05 evaluation reward: 5.01 episode: 3164 score: 4.0 memory length: 760497 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 243 evaluation reward: 5.02 episode: 3165 memory length: 760820 score: 6.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 323 evaluation reward: 5.05 memory length: 761001 episode: 3166 score: 2.0 epsilon: 0.009998020008555413 steps: 181 lr: 1.600000000000003e-05 evaluation reward: 5.04 episode: 3167 score: 4.0 memory length: 761259 epsilon: 0.009998020008555413 steps: 258 lr: 1.6000000000000003e-05 evaluation reward: 5.06 episode: 3168 score: 5.0 memory length: 761552 epsilon: 0.009998020008555413 steps: 293 lr: 1.6000000000000003e-05 evaluation reward: 5.06 episode: 3169 score: 7.0 memory length: 761939 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 387 evaluation reward: 5.02 episode: 3170 score: 4.0 memory length: 762196 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 257 evaluation reward: 4.98 memory length: 762507 episode: 3171 score: 6.0 epsilon: 0.009998020008555413 steps: 311 lr: 1.6000000000000003e-05 evaluation reward: 4.96 episode: 3172 score: 3.0 memory length: 762754 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 247 evaluation reward: 4.88 episode: 3173 score: 7.0 memory length: 763120 epsilon: 0.009998020008555413 steps: 366 lr: 1.6000000000000003e-05 evaluation reward: 4.9 episode: 3174 score: 4.0 memory length: 763398 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 278 evaluation reward: 4.84 episode: 3175 score: 6.0 memory length: 763742 0.009998020008555413 steps: 344 lr: 1.6000000000000003e-05 evaluation reward: 4.82 episode: 3176 score: 7.0 memory length: 764088 epsilon: 0.009998020008555413 steps: 346 lr: 1.6000000000000003e-05 evaluation reward: 4.83

memory length: 764365 episode: 3177 score: 4.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 277 evaluation reward: 4.79 episode: 3178 score: 2.0 memory length: 764544 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 179 evaluation reward: 4.74 episode: 3179 score: 3.0 memory length: 764787 epsilon: 0.009998020008555413 steps: 243 lr: 1.6000000000000003e-05 evaluation reward: 4.74 episode: 3180 score: 7.0 memory length: 765128 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 341 evaluation reward: 4.76 episode: 3181 memory length: 765309 score: 2.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 181 evaluation reward: 4.76 memory length: 765490 episode: 3182 score: 2.0 epsilon: 0.009998020008555413 steps: 181 lr: 1.600000000000003e-05 evaluation reward: 4.72 episode: 3183 score: 2.0 memory length: 765671 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.68 episode: 3184 score: 7.0 memory length: 766065 epsilon: 0.009998020008555413 steps: 394 lr: 1.6000000000000003e-05 evaluation reward: 4.66 episode: 3185 score: 6.0 memory length: 766421 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 356 evaluation reward: 4.67 episode: 3186 score: 8.0 memory length: 766781 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 360 evaluation reward: 4.69 memory length: 767075 episode: 3187 score: 5.0 epsilon: 0.009998020008555413 steps: 294 lr: 1.6000000000000003e-05 evaluation reward: 4.7 episode: 3188 score: 5.0 memory length: 767381 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 306 evaluation reward: 4.71 episode: 3189 score: 6.0 memory length: 767708 0.009998020008555413 steps: 327 lr: 1.6000000000000003e-05 evaluation reward: 4.75 episode: 3190 score: 5.0 memory length: 768002 epsilon: 0.009998020008555413 steps: 294 lr: 1.6000000000000003e-05 evaluation reward: 4.76 episode: 3191 score: 6.0 memory length: 768345 epsilon: 0.009998020008555413 steps: 343 lr: 1.6000000000000003e-05 evaluation reward: 4.75 episode: 3192 score: 2.0 memory length: 768526 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.73

memory length: 768854 episode: 3193 score: 6.0 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 328 evaluation reward: 4.76 episode: 3194 score: 7.0 memory length: 769231 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 377 evaluation reward: 4.71 episode: 3195 score: 2.0 memory length: 769412 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.7 episode: 3196 score: 5.0 memory length: 769737 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 325 evaluation reward: 4.73 episode: 3197 memory length: 770114 score: 7.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 377 evaluation reward: 4.75 memory length: 770408 episode: 3198 score: 5.0 epsilon: 0.009998020008555413 steps: 294 lr: 1.600000000000003e-05 evaluation reward: 4.72 episode: 3199 score: 2.0 memory length: 770589 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.69 episode: 3200 score: 6.0 memory length: 770931 epsilon: 0.009998020008555413 steps: 342 lr: 1.6000000000000003e-05 evaluation reward: 4.73 episode: 3201 score: 5.0 memory length: 771241 epsilon: 0.009998020008555413 lr: 1.600000000000003e-05 steps: 310 evaluation reward: 4.75 episode: 3202 score: 4.0 memory length: 771501 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 260 evaluation reward: 4.76 memory length: 771775 episode: 3203 score: 4.0 epsilon: 0.009998020008555413 steps: 274 lr: 1.6000000000000003e-05 evaluation reward: 4.76 episode: 3204 score: 4.0 memory length: 772018 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 243 evaluation reward: 4.75 episode: 3205 score: 4.0 memory length: 772296 epsilon: 0.009998020008555413 steps: 278 lr: 1.6000000000000003e-05 evaluation reward: 4.71 episode: 3206 score: 4.0 memory length: 772570 epsilon: 0.009998020008555413 steps: 274 lr: 1.6000000000000003e-05 evaluation reward: 4.73 episode: 3207 score: 2.0 memory length: 772751 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 181 evaluation reward: 4.73 episode: 3208 score: 4.0 memory length: 773029 epsilon: 0.009998020008555413 steps: 278 lr: 1.6000000000000003e-05 evaluation reward: 4.74

memory length: 773356 episode: 3209 score: 5.0 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 327 evaluation reward: 4.74 episode: 3210 score: 7.0 memory length: 773710 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 354 evaluation reward: 4.77 episode: 3211 score: 3.0 memory length: 773938 epsilon: 0.009998020008555413 steps: 228 lr: 1.6000000000000003e-05 evaluation reward: 4.77 episode: 3212 score: 2.0 memory length: 774119 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 181 evaluation reward: 4.74 episode: 3213 memory length: 774393 score: 4.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 274 evaluation reward: 4.74 memory length: 774574 episode: 3214 score: 2.0 epsilon: 0.009998020008555413 steps: 181 lr: 1.600000000000003e-05 evaluation reward: 4.66 episode: 3215 score: 6.0 memory length: 774891 epsilon: 0.009998020008555413 steps: 317 lr: 1.6000000000000003e-05 evaluation reward: 4.69 episode: 3216 score: 8.0 memory length: 775331 epsilon: 0.009998020008555413 steps: 440 lr: 1.6000000000000003e-05 evaluation reward: 4.74 episode: 3217 score: 4.0 memory length: 775605 epsilon: 0.009998020008555413 lr: 1.600000000000003e-05 steps: 274 evaluation reward: 4.72 episode: 3218 score: 7.0 memory length: 775999 epsilon: steps: 394 0.009998020008555413 lr: 1.6000000000000003e-05 evaluation reward: 4.74 memory length: 776344 episode: 3219 score: 7.0 epsilon: 0.009998020008555413 steps: 345 lr: 1.6000000000000003e-05 evaluation reward: 4.76 episode: 3220 score: 5.0 memory length: 776634 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 290 evaluation reward: 4.79 score: 2.0 episode: 3221 memory length: 776815 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.79 episode: 3222 score: 6.0 memory length: 777136 epsilon: 0.009998020008555413 steps: 321 lr: 1.6000000000000003e-05 evaluation reward: 4.82 episode: 3223 score: 3.0 memory length: 777367 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 231 evaluation reward: 4.8 episode: 3224 score: 6.0 memory length: 777711 epsilon: 0.009998020008555413 steps: 344 lr: 1.6000000000000003e-05 evaluation reward: 4.83

memory length: 778005 episode: 3225 score: 5.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 294 evaluation reward: 4.83 episode: 3226 score: 4.0 memory length: 778265 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 260 evaluation reward: 4.85 episode: 3227 score: 4.0 memory length: 778522 epsilon: 0.009998020008555413 steps: 257 lr: 1.6000000000000003e-05 evaluation reward: 4.81 episode: 3228 score: 3.0 memory length: 778766 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 244 evaluation reward: 4.8 episode: 3229 memory length: 779104 score: 6.0 epsilon: 0.009998020008555413 steps: 338 lr: 1.6000000000000003e-05 evaluation reward: 4.8 memory length: 779334 episode: 3230 score: 3.0 epsilon: 0.009998020008555413 steps: 230 lr: 1.600000000000003e-05 evaluation reward: 4.8 episode: 3231 score: 3.0 memory length: 779544 epsilon: 0.009998020008555413 steps: 210 lr: 1.600000000000003e-05 evaluation reward: 4.8 episode: 3232 score: 9.0 memory length: 780006 epsilon: 0.009998020008555413 steps: 462 lr: 1.6000000000000003e-05 evaluation reward: 4.84 episode: 3233 score: 4.0 memory length: 780266 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 260 evaluation reward: 4.83 episode: 3234 score: 7.0 memory length: 780607 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 341 evaluation reward: 4.82 memory length: 780952 episode: 3235 score: 7.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 345 evaluation reward: 4.87 episode: 3236 score: 6.0 memory length: 781250 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 298 evaluation reward: 4.87 episode: 3237 score: 8.0 memory length: 781610 0.009998020008555413 steps: 360 lr: 1.6000000000000003e-05 evaluation reward: 4.92 episode: 3238 score: 7.0 memory length: 781964 epsilon: 0.009998020008555413 steps: 354 lr: 1.6000000000000003e-05 evaluation reward: 4.9 episode: 3239 score: 7.0 memory length: 782317 epsilon: 0.009998020008555413 steps: 353 lr: 1.6000000000000003e-05 evaluation reward: 4.92 episode: 3240 score: 8.0 memory length: 782739 epsilon: 0.009998020008555413 steps: 422 lr: 1.6000000000000003e-05 evaluation reward: 4.95

memory length: 782968 episode: 3241 score: 3.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 229 evaluation reward: 4.94 episode: 3242 score: 4.0 memory length: 783222 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 254 evaluation reward: 4.94 episode: 3243 score: 4.0 memory length: 783478 epsilon: 0.009998020008555413 steps: 256 lr: 1.6000000000000003e-05 evaluation reward: 4.89 episode: 3244 score: 4.0 memory length: 783736 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 258 evaluation reward: 4.9 episode: 3245 memory length: 783961 score: 3.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 225 evaluation reward: 4.89 memory length: 784235 episode: 3246 score: 4.0 epsilon: 0.009998020008555413 steps: 274 lr: 1.600000000000003e-05 evaluation reward: 4.89 episode: 3247 score: 2.0 memory length: 784415 epsilon: 0.009998020008555413 steps: 180 lr: 1.6000000000000003e-05 evaluation reward: 4.85 episode: 3248 score: 4.0 memory length: 784689 epsilon: 0.009998020008555413 steps: 274 lr: 1.6000000000000003e-05 evaluation reward: 4.86 episode: 3249 score: 4.0 memory length: 784946 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 257 evaluation reward: 4.87 episode: 3250 score: 5.0 memory length: 785226 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 280 evaluation reward: 4.85 memory length: 785517 episode: 3251 score: 5.0 epsilon: 0.009998020008555413 steps: 291 lr: 1.6000000000000003e-05 evaluation reward: 4.85 episode: 3252 score: 4.0 memory length: 785795 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 278 evaluation reward: 4.84 episode: 3253 score: 7.0 memory length: 786140 0.009998020008555413 steps: 345 lr: 1.6000000000000003e-05 evaluation reward: 4.84 episode: 3254 score: 6.0 memory length: 786438 epsilon: 0.009998020008555413 steps: 298 lr: 1.6000000000000003e-05 evaluation reward: 4.83 episode: 3255 score: 3.0 memory length: 786669 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 231 evaluation reward: 4.81 episode: 3256 score: 4.0 memory length: 786946 epsilon: 0.009998020008555413 steps: 277 lr: 1.6000000000000003e-05 evaluation reward: 4.78

episode: 3257 score: 3.0 memory length: 787156 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 210 evaluation reward: 4.78 episode: 3258 score: 4.0 memory length: 787434 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 278 evaluation reward: 4.78 episode: 3259 score: 5.0 memory length: 787721 epsilon: 0.009998020008555413 steps: 287 lr: 1.6000000000000003e-05 evaluation reward: 4.79 episode: 3260 score: 3.0 memory length: 787952 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 231 evaluation reward: 4.74 episode: 3261 memory length: 788257 score: 6.0 epsilon: steps: 305 lr: 1.6000000000000003e-05 0.009998020008555413 evaluation reward: 4.76 memory length: 788555 episode: 3262 score: 6.0 epsilon: 0.009998020008555413 steps: 298 lr: 1.600000000000003e-05 evaluation reward: 4.76 episode: 3263 score: 4.0 memory length: 788830 epsilon: 0.009998020008555413 steps: 275 lr: 1.6000000000000003e-05 evaluation reward: 4.73 episode: 3264 score: 5.0 memory length: 789140 epsilon: 0.009998020008555413 steps: 310 lr: 1.6000000000000003e-05 evaluation reward: 4.74 episode: 3265 score: 3.0 memory length: 789350 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 210 evaluation reward: 4.71 episode: 3266 score: 6.0 memory length: 789675 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 325 evaluation reward: 4.75 memory length: 790027 episode: 3267 score: 7.0 epsilon: 0.009998020008555413 steps: 352 lr: 1.6000000000000003e-05 evaluation reward: 4.78 episode: 3268 score: 6.0 memory length: 790356 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 329 evaluation reward: 4.79 episode: 3269 score: 4.0 memory length: 790635 epsilon: 0.009998020008555413 steps: 279 lr: 1.6000000000000003e-05 evaluation reward: 4.76 episode: 3270 score: 2.0 memory length: 790816 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.74 episode: 3271 score: 9.0 memory length: 791273 0.009998020008555413 steps: 457 lr: 1.6000000000000003e-05 evaluation reward: 4.77 episode: 3272 score: 10.0 memory length: 791756 epsilon: 0.009998020008555413 steps: 483 lr: 1.6000000000000003e-05 evaluation reward: 4.84

memory length: 792015 episode: 3273 score: 4.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 259 evaluation reward: 4.81 episode: 3274 score: 8.0 memory length: 792411 epsilon: 0.009998020008555413 steps: 396 lr: 1.6000000000000003e-05 evaluation reward: 4.85 episode: 3275 score: 6.0 memory length: 792716 epsilon: 0.009998020008555413 steps: 305 lr: 1.6000000000000003e-05 evaluation reward: 4.85 episode: 3276 score: 5.0 memory length: 792996 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 280 evaluation reward: 4.83 episode: 3277 memory length: 793333 score: 7.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 337 evaluation reward: 4.86 memory length: 793660 episode: 3278 score: 6.0 epsilon: 0.009998020008555413 steps: 327 lr: 1.600000000000003e-05 evaluation reward: 4.9 episode: 3279 score: 6.0 memory length: 793965 epsilon: 0.009998020008555413 steps: 305 lr: 1.6000000000000003e-05 evaluation reward: 4.93 episode: 3280 score: 7.0 memory length: 794358 epsilon: 0.009998020008555413 steps: 393 lr: 1.6000000000000003e-05 evaluation reward: 4.93 episode: 3281 memory length: 794539 score: 2.0 epsilon: steps: 181 lr: 1.600000000000003e-05 0.009998020008555413 evaluation reward: 4.93 episode: 3282 score: 3.0 memory length: 794749 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 210 evaluation reward: 4.94 memory length: 794930 episode: 3283 score: 2.0 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.94 episode: 3284 score: 2.0 memory length: 795111 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 181 evaluation reward: 4.89 score: 2.0 episode: 3285 memory length: 795292 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.85 episode: 3286 score: 2.0 memory length: 795473 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.79 episode: 3287 score: 2.0 memory length: 795654 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 181 evaluation reward: 4.76 episode: 3288 score: 2.0 memory length: 795851 epsilon: 0.009998020008555413 steps: 197 lr: 1.6000000000000003e-05 evaluation reward: 4.73

episode: 3289 score: 8.0 memory length: 796269 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 418 evaluation reward: 4.75 episode: 3290 score: 2.0 memory length: 796450 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 181 evaluation reward: 4.72 episode: 3291 score: 6.0 memory length: 796755 epsilon: 0.009998020008555413 steps: 305 lr: 1.6000000000000003e-05 evaluation reward: 4.72 episode: 3292 score: 2.0 memory length: 796936 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 181 evaluation reward: 4.72 episode: 3293 memory length: 797146 score: 3.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 210 evaluation reward: 4.69 memory length: 797327 episode: 3294 score: 2.0 epsilon: 0.009998020008555413 steps: 181 lr: 1.600000000000003e-05 evaluation reward: 4.64 episode: 3295 score: 4.0 memory length: 797568 epsilon: 0.009998020008555413 steps: 241 lr: 1.6000000000000003e-05 evaluation reward: 4.66 episode: 3296 score: 2.0 memory length: 797749 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.63 episode: 3297 score: 3.0 memory length: 797959 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 210 evaluation reward: 4.59 episode: 3298 score: 5.0 memory length: 798283 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 324 evaluation reward: 4.59 memory length: 798635 episode: 3299 score: 6.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 352 evaluation reward: 4.63 episode: 3300 score: 4.0 memory length: 798889 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 254 evaluation reward: 4.61 episode: 3301 score: 8.0 memory length: 799310 epsilon: 0.009998020008555413 steps: 421 lr: 1.6000000000000003e-05 evaluation reward: 4.64 episode: 3302 score: 2.0 memory length: 799491 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.62 episode: 3303 score: 5.0 memory length: 799783 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 292 evaluation reward: 4.63 episode: 3304 score: 4.0 memory length: 800042 epsilon: 0.009998020008555413 steps: 259 lr: 1.6000000000000003e-05 evaluation reward: 4.63

episode: 3305 score: 3.0 memory length: 800270 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 228 evaluation reward: 4.62 episode: 3306 score: 4.0 memory length: 800544 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 274 evaluation reward: 4.62 episode: 3307 score: 6.0 memory length: 800900 epsilon: 0.009998020008555413 steps: 356 lr: 1.6000000000000003e-05 evaluation reward: 4.66 episode: 3308 score: 7.0 memory length: 801276 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 376 evaluation reward: 4.69 episode: 3309 memory length: 801603 score: 6.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 327 evaluation reward: 4.7 memory length: 802000 episode: 3310 score: 7.0 epsilon: 0.009998020008555413 steps: 397 lr: 1.600000000000003e-05 evaluation reward: 4.7 episode: 3311 score: 6.0 memory length: 802329 epsilon: 0.009998020008555413 steps: 329 lr: 1.6000000000000003e-05 evaluation reward: 4.73 episode: 3312 score: 6.0 memory length: 802658 epsilon: 0.009998020008555413 steps: 329 lr: 1.6000000000000003e-05 evaluation reward: 4.77 episode: 3313 score: 6.0 memory length: 802987 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 329 evaluation reward: 4.79 episode: 3314 score: 6.0 memory length: 803316 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 329 evaluation reward: 4.83 memory length: 803692 episode: 3315 score: 7.0 epsilon: 0.009998020008555413 steps: 376 lr: 1.6000000000000003e-05 evaluation reward: 4.84 episode: 3316 score: 6.0 memory length: 804021 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 329 evaluation reward: 4.82 score: 3.0 episode: 3317 memory length: 804268 epsilon: 0.009998020008555413 steps: 247 lr: 1.6000000000000003e-05 evaluation reward: 4.81 episode: 3318 score: 6.0 memory length: 804597 epsilon: 0.009998020008555413 steps: 329 lr: 1.6000000000000003e-05 evaluation reward: 4.8 episode: 3319 score: 3.0 memory length: 804824 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 227 evaluation reward: 4.76 episode: 3320 score: 2.0 memory length: 805005 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.73

memory length: 805313 episode: 3321 score: 5.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 308 evaluation reward: 4.76 episode: 3322 score: 5.0 memory length: 805640 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 327 evaluation reward: 4.75 episode: 3323 score: 6.0 memory length: 805993 epsilon: 0.009998020008555413 steps: 353 lr: 1.6000000000000003e-05 evaluation reward: 4.78 episode: 3324 score: 3.0 memory length: 806223 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 230 evaluation reward: 4.75 episode: 3325 memory length: 806454 score: 3.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 231 evaluation reward: 4.73 memory length: 806783 episode: 3326 score: 5.0 epsilon: 0.009998020008555413 steps: 329 lr: 1.600000000000003e-05 evaluation reward: 4.74 episode: 3327 score: 6.0 memory length: 807128 epsilon: 0.009998020008555413 steps: 345 lr: 1.6000000000000003e-05 evaluation reward: 4.76 episode: 3328 score: 10.0 memory length: 807520 epsilon: 0.009998020008555413 steps: 392 lr: 1.6000000000000003e-05 evaluation reward: 4.83 episode: 3329 score: 4.0 memory length: 807779 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 259 evaluation reward: 4.81 episode: 3330 score: 3.0 memory length: 808028 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 249 evaluation reward: 4.81 memory length: 808357 episode: 3331 score: 6.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 329 evaluation reward: 4.84 episode: 3332 score: 3.0 memory length: 808567 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 210 evaluation reward: 4.78 score: 3.0 episode: 3333 memory length: 808798 epsilon: 0.009998020008555413 steps: 231 lr: 1.6000000000000003e-05 evaluation reward: 4.77 episode: 3334 score: 6.0 memory length: 809127 epsilon: 0.009998020008555413 steps: 329 lr: 1.6000000000000003e-05 evaluation reward: 4.76 episode: 3335 score: 5.0 memory length: 809438 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 311 evaluation reward: 4.74 episode: 3336 score: 4.0 memory length: 809718 epsilon: 0.009998020008555413 steps: 280 lr: 1.6000000000000003e-05 evaluation reward: 4.72

memory length: 809967 episode: 3337 score: 3.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 249 evaluation reward: 4.67 episode: 3338 score: 6.0 memory length: 810322 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 355 evaluation reward: 4.66 episode: 3339 score: 6.0 memory length: 810651 epsilon: 0.009998020008555413 steps: 329 lr: 1.6000000000000003e-05 evaluation reward: 4.65 episode: 3340 score: 3.0 memory length: 810900 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 249 evaluation reward: 4.6 episode: 3341 memory length: 811293 score: 7.0 epsilon: steps: 393 lr: 1.6000000000000003e-05 0.009998020008555413 evaluation reward: 4.64 memory length: 811518 episode: 3342 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 1.600000000000003e-05 evaluation reward: 4.63 episode: 3343 score: 4.0 memory length: 811783 epsilon: 0.009998020008555413 steps: 265 lr: 1.6000000000000003e-05 evaluation reward: 4.63 episode: 3344 score: 3.0 memory length: 811993 epsilon: 0.009998020008555413 steps: 210 lr: 1.6000000000000003e-05 evaluation reward: 4.62 episode: 3345 score: 4.0 memory length: 812253 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 260 evaluation reward: 4.63 episode: 3346 score: 6.0 memory length: 812597 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 344 evaluation reward: 4.65 memory length: 813118 episode: 3347 score: 11.0 epsilon: 0.009998020008555413 steps: 521 lr: 1.6000000000000003e-05 evaluation reward: 4.74 episode: 3348 score: 5.0 memory length: 813426 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 308 evaluation reward: 4.75 episode: 3349 score: 6.0 memory length: 813800 epsilon: 0.009998020008555413 steps: 374 lr: 1.6000000000000003e-05 evaluation reward: 4.77 episode: 3350 score: 6.0 memory length: 814129 epsilon: 0.009998020008555413 steps: 329 lr: 1.6000000000000003e-05 evaluation reward: 4.78 episode: 3351 score: 4.0 memory length: 814407 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 278 evaluation reward: 4.77 episode: 3352 score: 4.0 memory length: 814683 epsilon: 0.009998020008555413 steps: 276 lr: 1.6000000000000003e-05 evaluation reward: 4.77

memory length: 815012 episode: 3353 score: 6.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 329 evaluation reward: 4.76 episode: 3354 score: 5.0 memory length: 815299 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 287 evaluation reward: 4.75 episode: 3355 score: 4.0 memory length: 815573 epsilon: 0.009998020008555413 steps: 274 lr: 1.6000000000000003e-05 evaluation reward: 4.76 episode: 3356 score: 6.0 memory length: 815881 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 308 evaluation reward: 4.78 episode: 3357 memory length: 816208 score: 6.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 327 evaluation reward: 4.81 memory length: 816537 episode: 3358 score: 6.0 epsilon: 0.009998020008555413 steps: 329 lr: 1.600000000000003e-05 evaluation reward: 4.83 episode: 3359 score: 6.0 memory length: 816866 epsilon: 0.009998020008555413 steps: 329 lr: 1.6000000000000003e-05 evaluation reward: 4.84 episode: 3360 score: 3.0 memory length: 817115 epsilon: 0.009998020008555413 steps: 249 lr: 1.6000000000000003e-05 evaluation reward: 4.84 episode: 3361 score: 6.0 memory length: 817444 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 329 evaluation reward: 4.84 episode: 3362 score: 6.0 memory length: 817773 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 329 evaluation reward: 4.84 episode: 3363 score: 6.0 memory length: 818102 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 329 evaluation reward: 4.86 episode: 3364 score: 5.0 memory length: 818426 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 324 evaluation reward: 4.86 episode: 3365 score: 7.0 memory length: 818834 epsilon: 0.009998020008555413 steps: 408 lr: 1.6000000000000003e-05 evaluation reward: 4.9 episode: 3366 score: 5.0 memory length: 819125 epsilon: 0.009998020008555413 steps: 291 lr: 1.6000000000000003e-05 evaluation reward: 4.89 episode: 3367 score: 3.0 memory length: 819356 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 231 evaluation reward: 4.85 episode: 3368 score: 3.0 memory length: 819603 epsilon: 0.009998020008555413 steps: 247 lr: 1.6000000000000003e-05 evaluation reward: 4.82

memory length: 819847 episode: 3369 score: 3.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 244 evaluation reward: 4.81 episode: 3370 score: 5.0 memory length: 820156 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 309 evaluation reward: 4.84 episode: 3371 score: 10.0 memory length: 820611 epsilon: 0.009998020008555413 steps: 455 lr: 1.6000000000000003e-05 evaluation reward: 4.85 episode: 3372 score: 6.0 memory length: 820940 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 329 evaluation reward: 4.81 episode: 3373 memory length: 821269 score: 6.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 329 evaluation reward: 4.83 memory length: 821500 episode: 3374 score: 3.0 epsilon: 0.009998020008555413 steps: 231 lr: 1.600000000000003e-05 evaluation reward: 4.78 episode: 3375 score: 5.0 memory length: 821780 epsilon: 0.009998020008555413 steps: 280 lr: 1.6000000000000003e-05 evaluation reward: 4.77 episode: 3376 score: 5.0 memory length: 822108 epsilon: 0.009998020008555413 steps: 328 lr: 1.6000000000000003e-05 evaluation reward: 4.77 episode: 3377 score: 6.0 memory length: 822437 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 329 evaluation reward: 4.76 episode: 3378 score: 3.0 memory length: 822662 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 225 evaluation reward: 4.73 episode: 3379 score: 6.0 memory length: 822991 epsilon: 0.009998020008555413 steps: 329 lr: 1.6000000000000003e-05 evaluation reward: 4.73 episode: 3380 score: 7.0 memory length: 823367 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 376 evaluation reward: 4.73 episode: 3381 score: 6.0 memory length: 823694 epsilon: 0.009998020008555413 steps: 327 lr: 1.6000000000000003e-05 evaluation reward: 4.77 episode: 3382 score: 5.0 memory length: 823974 epsilon: 0.009998020008555413 steps: 280 lr: 1.6000000000000003e-05 evaluation reward: 4.79 episode: 3383 score: 6.0 memory length: 824303 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 329 evaluation reward: 4.83 episode: 3384 score: 2.0 memory length: 824484 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.83

memory length: 824861 episode: 3385 score: 7.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 377 evaluation reward: 4.88 episode: 3386 score: 2.0 memory length: 825058 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 197 evaluation reward: 4.88 episode: 3387 score: 2.0 memory length: 825239 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.88 epsilon: episode: 3388 score: 3.0 memory length: 825470 lr: 1.6000000000000003e-05 0.009998020008555413 steps: 231 evaluation reward: 4.89 episode: 3389 memory length: 825701 score: 3.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 231 evaluation reward: 4.84 memory length: 825932 episode: 3390 score: 3.0 epsilon: 0.009998020008555413 steps: 231 lr: 1.600000000000003e-05 evaluation reward: 4.85 episode: 3391 score: 3.0 memory length: 826142 epsilon: 0.009998020008555413 steps: 210 lr: 1.6000000000000003e-05 evaluation reward: 4.82 episode: 3392 score: 2.0 memory length: 826339 epsilon: 0.009998020008555413 steps: 197 lr: 1.6000000000000003e-05 evaluation reward: 4.82 episode: 3393 score: 4.0 memory length: 826598 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 259 evaluation reward: 4.83 episode: 3394 score: 4.0 memory length: 826860 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 262 evaluation reward: 4.85 episode: 3395 score: 6.0 memory length: 827189 epsilon: 0.009998020008555413 steps: 329 lr: 1.6000000000000003e-05 evaluation reward: 4.87 episode: 3396 score: 6.0 memory length: 827518 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 329 evaluation reward: 4.91 episode: 3397 score: 6.0 memory length: 827847 epsilon: 0.009998020008555413 steps: 329 lr: 1.6000000000000003e-05 evaluation reward: 4.94 episode: 3398 score: 5.0 memory length: 828175 epsilon: 0.009998020008555413 steps: 328 lr: 1.6000000000000003e-05 evaluation reward: 4.94 episode: 3399 score: 5.0 memory length: 828455 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 280 evaluation reward: 4.93 episode: 3400 score: 6.0 memory length: 828782 epsilon: 0.009998020008555413 steps: 327 lr: 1.6000000000000003e-05 evaluation reward: 4.95

memory length: 829125 episode: 3401 score: 6.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 343 evaluation reward: 4.93 episode: 3402 score: 5.0 memory length: 829409 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 284 evaluation reward: 4.96 episode: 3403 score: 6.0 memory length: 829738 epsilon: 0.009998020008555413 steps: 329 lr: 1.6000000000000003e-05 evaluation reward: 4.97 episode: 3404 score: 5.0 memory length: 830018 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 280 evaluation reward: 4.98 episode: 3405 memory length: 830347 score: 6.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 329 evaluation reward: 5.01 memory length: 830743 episode: 3406 score: 7.0 epsilon: 0.009998020008555413 steps: 396 lr: 1.600000000000003e-05 evaluation reward: 5.04 episode: 3407 score: 5.0 memory length: 831034 epsilon: 0.009998020008555413 steps: 291 lr: 1.6000000000000003e-05 evaluation reward: 5.03 episode: 3408 score: 6.0 memory length: 831363 epsilon: 0.009998020008555413 steps: 329 lr: 1.6000000000000003e-05 evaluation reward: 5.02 episode: 3409 score: 9.0 memory length: 831802 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 439 evaluation reward: 5.05 episode: 3410 score: 11.0 memory length: 832370 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 568 evaluation reward: 5.09 episode: 3411 score: 8.0 memory length: 832743 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 373 evaluation reward: 5.11 memory length: 833291 episode: 3412 score: 11.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 548 evaluation reward: 5.16 score: 3.0 episode: 3413 memory length: 833519 0.009998020008555413 steps: 228 lr: 1.6000000000000003e-05 evaluation reward: 5.13 episode: 3414 score: 5.0 memory length: 833803 epsilon: 0.009998020008555413 steps: 284 lr: 1.6000000000000003e-05 evaluation reward: 5.12 episode: 3415 score: 9.0 memory length: 834222 epsilon: 0.009998020008555413 steps: 419 lr: 1.6000000000000003e-05 evaluation reward: 5.14 episode: 3416 score: 6.0 memory length: 834551 epsilon: 0.009998020008555413 steps: 329 lr: 1.6000000000000003e-05 evaluation reward: 5.14

memory length: 834808 episode: 3417 score: 4.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 257 evaluation reward: 5.15 episode: 3418 score: 8.0 memory length: 835213 epsilon: 0.009998020008555413 steps: 405 lr: 1.6000000000000003e-05 evaluation reward: 5.17 episode: 3419 score: 6.0 memory length: 835559 epsilon: 0.009998020008555413 steps: 346 lr: 1.6000000000000003e-05 evaluation reward: 5.2 episode: 3420 score: 2.0 memory length: 835740 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 181 evaluation reward: 5.2 episode: 3421 memory length: 835921 score: 2.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 181 evaluation reward: 5.17 memory length: 836182 episode: 3422 score: 4.0 epsilon: 0.009998020008555413 steps: 261 lr: 1.600000000000003e-05 evaluation reward: 5.16 episode: 3423 score: 8.0 memory length: 836630 epsilon: 0.009998020008555413 steps: 448 lr: 1.600000000000003e-05 evaluation reward: 5.18 episode: 3424 score: 12.0 memory length: 836932 epsilon: 0.009998020008555413 steps: 302 lr: 1.6000000000000003e-05 evaluation reward: 5.27 episode: 3425 score: 4.0 memory length: 837173 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 241 evaluation reward: 5.28 episode: 3426 score: 4.0 memory length: 837416 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 243 evaluation reward: 5.27 memory length: 837628 episode: 3427 score: 3.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 212 evaluation reward: 5.24 episode: 3428 score: 9.0 memory length: 837954 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 326 evaluation reward: 5.23 score: 3.0 episode: 3429 memory length: 838166 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 5.22 episode: 3430 score: 4.0 memory length: 838427 epsilon: 0.009998020008555413 steps: 261 lr: 1.6000000000000003e-05 evaluation reward: 5.23 episode: 3431 score: 3.0 memory length: 838656 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 229 evaluation reward: 5.2 episode: 3432 score: 3.0 memory length: 838883 epsilon: 0.009998020008555413 steps: 227 lr: 1.6000000000000003e-05 evaluation reward: 5.2

memory length: 839093 episode: 3433 score: 3.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 210 evaluation reward: 5.2 episode: 3434 score: 2.0 memory length: 839290 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 197 evaluation reward: 5.16 episode: 3435 score: 4.0 memory length: 839551 epsilon: 0.009998020008555413 steps: 261 lr: 1.6000000000000003e-05 evaluation reward: 5.15 episode: 3436 score: 5.0 memory length: 839897 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 346 evaluation reward: 5.16 episode: 3437 memory length: 840292 score: 7.0 epsilon: 0.009998020008555413 steps: 395 lr: 1.6000000000000003e-05 evaluation reward: 5.2 memory length: 840546 episode: 3438 score: 4.0 epsilon: 0.009998020008555413 steps: 254 lr: 1.6000000000000003e-05 evaluation reward: 5.18 episode: 3439 score: 3.0 memory length: 840758 epsilon: 0.009998020008555413 steps: 212 lr: 1.600000000000003e-05 evaluation reward: 5.15 episode: 3440 score: 3.0 memory length: 840970 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 5.15 episode: 3441 score: 12.0 memory length: 841522 epsilon: 0.009998020008555413 lr: 1.600000000000003e-05 steps: 552 evaluation reward: 5.2 episode: 3442 score: 3.0 memory length: 841734 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 212 evaluation reward: 5.2 memory length: 842033 episode: 3443 score: 5.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 299 evaluation reward: 5.21 episode: 3444 score: 4.0 memory length: 842287 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 254 evaluation reward: 5.22 score: 4.0 episode: 3445 memory length: 842543 epsilon: 0.009998020008555413 steps: 256 lr: 1.6000000000000003e-05 evaluation reward: 5.22 episode: 3446 score: 2.0 memory length: 842724 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 5.18 episode: 3447 score: 4.0 memory length: 842983 epsilon: steps: 259 lr: 1.6000000000000003e-05 0.009998020008555413 evaluation reward: 5.11 episode: 3448 score: 3.0 memory length: 843210 epsilon: 0.009998020008555413 steps: 227 lr: 1.6000000000000003e-05 evaluation reward: 5.09

memory length: 843546 episode: 3449 score: 6.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 336 evaluation reward: 5.09 episode: 3450 score: 4.0 memory length: 843805 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 259 evaluation reward: 5.07 episode: 3451 score: 5.0 memory length: 844109 epsilon: 0.009998020008555413 steps: 304 lr: 1.6000000000000003e-05 evaluation reward: 5.08 episode: 3452 score: 2.0 memory length: 844290 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 181 evaluation reward: 5.06 episode: 3453 memory length: 844544 score: 4.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 254 evaluation reward: 5.04 memory length: 844867 episode: 3454 score: 5.0 epsilon: 0.009998020008555413 steps: 323 lr: 1.600000000000003e-05 evaluation reward: 5.04 episode: 3455 score: 5.0 memory length: 845195 epsilon: 0.009998020008555413 steps: 328 lr: 1.6000000000000003e-05 evaluation reward: 5.05 episode: 3456 score: 5.0 memory length: 845485 epsilon: 0.009998020008555413 steps: 290 lr: 1.6000000000000003e-05 evaluation reward: 5.04 episode: 3457 score: 5.0 memory length: 845770 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 285 evaluation reward: 5.03 episode: 3458 score: 5.0 memory length: 846097 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 327 evaluation reward: 5.02 memory length: 846451 episode: 3459 score: 6.0 epsilon: 0.009998020008555413 steps: 354 lr: 1.6000000000000003e-05 evaluation reward: 5.02 episode: 3460 score: 5.0 memory length: 846741 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 290 evaluation reward: 5.04 episode: 3461 score: 2.0 memory length: 846922 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 5.0 episode: 3462 score: 6.0 memory length: 847280 epsilon: 0.009998020008555413 steps: 358 lr: 1.6000000000000003e-05 evaluation reward: 5.0 episode: 3463 score: 3.0 memory length: 847492 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 212 evaluation reward: 4.97 episode: 3464 score: 3.0 memory length: 847704 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.95

memory length: 847961 episode: 3465 score: 4.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 257 evaluation reward: 4.92 episode: 3466 score: 7.0 memory length: 848354 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 393 evaluation reward: 4.94 episode: 3467 score: 4.0 memory length: 848615 epsilon: 0.009998020008555413 steps: 261 lr: 1.6000000000000003e-05 evaluation reward: 4.95 episode: 3468 score: 9.0 memory length: 849042 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 427 evaluation reward: 5.01 episode: 3469 memory length: 849318 score: 4.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 276 evaluation reward: 5.02 memory length: 849579 episode: 3470 score: 4.0 epsilon: 0.009998020008555413 steps: 261 lr: 1.600000000000003e-05 evaluation reward: 5.01 episode: 3471 score: 5.0 memory length: 849883 epsilon: 0.009998020008555413 steps: 304 lr: 1.6000000000000003e-05 evaluation reward: 4.96 episode: 3472 score: 2.0 memory length: 850082 epsilon: 0.009998020008555413 steps: 199 lr: 1.6000000000000003e-05 evaluation reward: 4.92 episode: 3473 memory length: 850309 score: 3.0 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 227 evaluation reward: 4.89 episode: 3474 score: 2.0 memory length: 850506 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 197 evaluation reward: 4.88 memory length: 850955 episode: 3475 score: 9.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 449 evaluation reward: 4.92 episode: 3476 score: 2.0 memory length: 851136 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 181 evaluation reward: 4.89 episode: 3477 score: 10.0 memory length: 851608 0.009998020008555413 steps: 472 lr: 1.6000000000000003e-05 evaluation reward: 4.93 episode: 3478 score: 9.0 memory length: 852046 epsilon: 0.009998020008555413 steps: 438 lr: 1.6000000000000003e-05 evaluation reward: 4.99 episode: 3479 score: 6.0 memory length: 852367 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 321 evaluation reward: 4.99 episode: 3480 score: 3.0 memory length: 852579 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.95

episode: 3481 score: 3.0 memory length: 852788 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 209 evaluation reward: 4.92 episode: 3482 score: 3.0 memory length: 852997 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 209 evaluation reward: 4.9 episode: 3483 score: 4.0 memory length: 853256 epsilon: 0.009998020008555413 steps: 259 lr: 1.6000000000000003e-05 evaluation reward: 4.88 score: 7.0 episode: 3484 memory length: 853641 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 385 evaluation reward: 4.93 episode: 3485 memory length: 853902 score: 4.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 261 evaluation reward: 4.9 memory length: 854114 episode: 3486 score: 3.0 epsilon: 0.009998020008555413 steps: 212 lr: 1.600000000000003e-05 evaluation reward: 4.91 episode: 3487 score: 8.0 memory length: 854384 epsilon: 0.009998020008555413 steps: 270 lr: 1.6000000000000003e-05 evaluation reward: 4.97 episode: 3488 score: 3.0 memory length: 854596 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.97 episode: 3489 score: 3.0 memory length: 854805 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 209 evaluation reward: 4.97 episode: 3490 score: 3.0 memory length: 855032 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 227 evaluation reward: 4.97 memory length: 855286 episode: 3491 score: 4.0 epsilon: 0.009998020008555413 steps: 254 lr: 1.6000000000000003e-05 evaluation reward: 4.98 episode: 3492 score: 6.0 memory length: 855626 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 340 evaluation reward: 5.02 score: 4.0 episode: 3493 memory length: 855887 epsilon: 0.009998020008555413 steps: 261 lr: 1.6000000000000003e-05 evaluation reward: 5.02 episode: 3494 score: 7.0 memory length: 856266 epsilon: 0.009998020008555413 steps: 379 lr: 1.6000000000000003e-05 evaluation reward: 5.05 episode: 3495 score: 4.0 memory length: 856507 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 241 evaluation reward: 5.03 episode: 3496 score: 11.0 memory length: 856874 epsilon: 0.009998020008555413 steps: 367 lr: 1.6000000000000003e-05 evaluation reward: 5.08

episode: 3497 score: 3.0 memory length: 857102 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 228 evaluation reward: 5.05 episode: 3498 score: 4.0 memory length: 857362 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 260 evaluation reward: 5.04 episode: 3499 score: 4.0 memory length: 857623 epsilon: 0.009998020008555413 steps: 261 lr: 1.6000000000000003e-05 evaluation reward: 5.03 episode: 3500 score: 7.0 memory length: 857999 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 376 evaluation reward: 5.04 episode: 3501 memory length: 858209 score: 3.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 210 evaluation reward: 5.01 memory length: 858463 episode: 3502 score: 4.0 epsilon: 0.009998020008555413 steps: 254 lr: 1.600000000000003e-05 evaluation reward: 5.0 episode: 3503 score: 4.0 memory length: 858704 epsilon: 0.009998020008555413 steps: 241 lr: 1.6000000000000003e-05 evaluation reward: 4.98 episode: 3504 score: 4.0 memory length: 858978 epsilon: 0.009998020008555413 steps: 274 lr: 1.6000000000000003e-05 evaluation reward: 4.97 episode: 3505 score: 4.0 memory length: 859220 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 242 evaluation reward: 4.95 episode: 3506 score: 4.0 memory length: 859481 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 261 evaluation reward: 4.92 memory length: 859786 episode: 3507 score: 6.0 epsilon: 0.009998020008555413 steps: 305 lr: 1.6000000000000003e-05 evaluation reward: 4.93 episode: 3508 score: 9.0 memory length: 860216 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 430 evaluation reward: 4.96 score: 3.0 episode: 3509 memory length: 860428 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.9 episode: 3510 score: 6.0 memory length: 860757 epsilon: 0.009998020008555413 steps: 329 lr: 1.6000000000000003e-05 evaluation reward: 4.85 episode: 3511 score: 8.0 memory length: 861109 epsilon: 0.009998020008555413 steps: 352 lr: 1.6000000000000003e-05 evaluation reward: 4.85 episode: 3512 score: 7.0 memory length: 861446 epsilon: 0.009998020008555413 steps: 337 lr: 1.6000000000000003e-05 evaluation reward: 4.81

memory length: 861822 episode: 3513 score: 7.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 376 evaluation reward: 4.85 episode: 3514 score: 5.0 memory length: 862089 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 267 evaluation reward: 4.85 episode: 3515 score: 3.0 memory length: 862317 epsilon: 0.009998020008555413 steps: 228 lr: 1.6000000000000003e-05 evaluation reward: 4.79 episode: 3516 score: 3.0 memory length: 862526 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 209 evaluation reward: 4.76 episode: 3517 memory length: 862738 score: 3.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 212 evaluation reward: 4.75 memory length: 863144 episode: 3518 score: 8.0 epsilon: 0.009998020008555413 steps: 406 lr: 1.600000000000003e-05 evaluation reward: 4.75 episode: 3519 score: 8.0 memory length: 863539 epsilon: 0.009998020008555413 steps: 395 lr: 1.6000000000000003e-05 evaluation reward: 4.77 episode: 3520 score: 3.0 memory length: 863751 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.78 episode: 3521 score: 4.0 memory length: 864013 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 262 evaluation reward: 4.8 episode: 3522 score: 10.0 memory length: 864484 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 471 evaluation reward: 4.86 episode: 3523 score: 4.0 memory length: 864745 epsilon: 0.009998020008555413 steps: 261 lr: 1.6000000000000003e-05 evaluation reward: 4.82 episode: 3524 score: 8.0 memory length: 865166 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 421 evaluation reward: 4.78 score: 6.0 episode: 3525 memory length: 865488 epsilon: 0.009998020008555413 steps: 322 lr: 1.6000000000000003e-05 evaluation reward: 4.8 episode: 3526 score: 5.0 memory length: 865786 epsilon: 0.009998020008555413 steps: 298 lr: 1.6000000000000003e-05 evaluation reward: 4.81 episode: 3527 score: 4.0 memory length: 866031 epsilon: 0.009998020008555413 steps: 245 lr: 1.6000000000000003e-05 evaluation reward: 4.82 episode: 3528 score: 4.0 memory length: 866288 epsilon: 0.009998020008555413 steps: 257 lr: 1.6000000000000003e-05 evaluation reward: 4.77

memory length: 866500 episode: 3529 score: 3.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 212 evaluation reward: 4.77 episode: 3530 score: 3.0 memory length: 866710 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 210 evaluation reward: 4.76 episode: 3531 score: 4.0 memory length: 866967 epsilon: 0.009998020008555413 steps: 257 lr: 1.6000000000000003e-05 evaluation reward: 4.77 episode: 3532 score: 4.0 memory length: 867226 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 259 evaluation reward: 4.78 episode: 3533 memory length: 867438 score: 3.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 212 evaluation reward: 4.78 memory length: 867729 episode: 3534 score: 5.0 epsilon: 0.009998020008555413 steps: 291 lr: 1.600000000000003e-05 evaluation reward: 4.81 episode: 3535 score: 6.0 memory length: 868070 epsilon: 0.009998020008555413 steps: 341 lr: 1.6000000000000003e-05 evaluation reward: 4.83 episode: 3536 score: 3.0 memory length: 868282 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.81 episode: 3537 score: 4.0 memory length: 868556 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 274 evaluation reward: 4.78 episode: 3538 score: 3.0 memory length: 868784 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 228 evaluation reward: 4.77 memory length: 869014 episode: 3539 score: 3.0 epsilon: 0.009998020008555413 steps: 230 lr: 1.6000000000000003e-05 evaluation reward: 4.77 episode: 3540 score: 3.0 memory length: 869226 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 212 evaluation reward: 4.77 score: 3.0 episode: 3541 memory length: 869438 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.68 episode: 3542 score: 5.0 memory length: 869745 epsilon: 0.009998020008555413 steps: 307 lr: 1.6000000000000003e-05 evaluation reward: 4.7 episode: 3543 score: 3.0 memory length: 869957 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 212 evaluation reward: 4.68 episode: 3544 score: 4.0 memory length: 870218 epsilon: 0.009998020008555413 steps: 261 lr: 1.6000000000000003e-05 evaluation reward: 4.68

memory length: 870601 episode: 3545 score: 7.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 383 evaluation reward: 4.71 episode: 3546 score: 4.0 memory length: 870857 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 256 evaluation reward: 4.73 episode: 3547 score: 4.0 memory length: 871116 epsilon: 0.009998020008555413 steps: 259 lr: 1.6000000000000003e-05 evaluation reward: 4.73 episode: 3548 score: 4.0 memory length: 871377 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 261 evaluation reward: 4.74 episode: 3549 memory length: 871634 score: 4.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 257 evaluation reward: 4.72 memory length: 871844 episode: 3550 score: 3.0 epsilon: 0.009998020008555413 steps: 210 lr: 1.600000000000003e-05 evaluation reward: 4.71 episode: 3551 score: 3.0 memory length: 872056 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.69 episode: 3552 score: 3.0 memory length: 872268 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.7 episode: 3553 score: 3.0 memory length: 872480 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 212 evaluation reward: 4.69 episode: 3554 score: 9.0 memory length: 872804 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 324 evaluation reward: 4.73 episode: 3555 memory length: 873014 score: 3.0 epsilon: 0.009998020008555413 steps: 210 lr: 1.6000000000000003e-05 evaluation reward: 4.71 episode: 3556 score: 3.0 memory length: 873226 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 212 evaluation reward: 4.69 episode: 3557 score: 3.0 memory length: 873436 epsilon: 0.009998020008555413 steps: 210 lr: 1.6000000000000003e-05 evaluation reward: 4.67 episode: 3558 score: 6.0 memory length: 873749 epsilon: 0.009998020008555413 steps: 313 lr: 1.6000000000000003e-05 evaluation reward: 4.68 episode: 3559 score: 3.0 memory length: 873961 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 212 evaluation reward: 4.65 episode: 3560 score: 6.0 memory length: 874280 epsilon: 0.009998020008555413 steps: 319 lr: 1.6000000000000003e-05 evaluation reward: 4.66

memory length: 874587 episode: 3561 score: 5.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 307 evaluation reward: 4.69 episode: 3562 score: 11.0 memory length: 874966 epsilon: steps: 379 lr: 1.6000000000000003e-05 0.009998020008555413 evaluation reward: 4.74 episode: 3563 score: 6.0 memory length: 875288 epsilon: 0.009998020008555413 steps: 322 lr: 1.6000000000000003e-05 evaluation reward: 4.77 episode: 3564 score: 6.0 memory length: 875601 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 313 evaluation reward: 4.8 episode: 3565 memory length: 875957 score: 6.0 epsilon: steps: 356 lr: 1.6000000000000003e-05 0.009998020008555413 evaluation reward: 4.82 memory length: 876207 episode: 3566 score: 4.0 epsilon: 0.009998020008555413 steps: 250 lr: 1.600000000000003e-05 evaluation reward: 4.79 episode: 3574 score: 5.0 memory length: 878487 epsilon: 0.009998020008555413 steps: 268 lr: 1.6000000000000003e-05 evaluation reward: 4.85 episode: 3575 score: 3.0 memory length: 878699 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.79 episode: 3576 score: 3.0 memory length: 878911 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 212 evaluation reward: 4.8 episode: 3577 score: 5.0 memory length: 879199 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 288 evaluation reward: 4.75 episode: 3578 score: 3.0 memory length: 879411 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.69 episode: 3579 score: 3.0 memory length: 879643 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 232 evaluation reward: 4.66 score: 3.0 episode: 3580 memory length: 879856 epsilon: 0.009998020008555413 steps: 213 lr: 1.6000000000000003e-05 evaluation reward: 4.66 episode: 3581 score: 6.0 memory length: 880155 epsilon: 0.009998020008555413 steps: 299 lr: 1.6000000000000003e-05 evaluation reward: 4.69 episode: 3582 score: 3.0 memory length: 880367 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 212 evaluation reward: 4.69 episode: 3583 score: 7.0 memory length: 880720 epsilon: 0.009998020008555413 steps: 353 lr: 1.6000000000000003e-05 evaluation reward: 4.72

memory length: 881144 episode: 3584 score: 8.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 424 evaluation reward: 4.73 episode: 3585 score: 7.0 memory length: 881515 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 371 evaluation reward: 4.76 episode: 3586 score: 7.0 memory length: 881911 epsilon: 0.009998020008555413 steps: 396 lr: 1.6000000000000003e-05 evaluation reward: 4.8 episode: 3587 score: 9.0 memory length: 882327 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 416 evaluation reward: 4.81 episode: 3588 memory length: 882674 score: 6.0 epsilon: steps: 347 lr: 1.6000000000000003e-05 0.009998020008555413 evaluation reward: 4.84 memory length: 882884 episode: 3589 score: 3.0 epsilon: 0.009998020008555413 steps: 210 lr: 1.600000000000003e-05 evaluation reward: 4.84 episode: 3590 score: 12.0 memory length: 883186 epsilon: 0.009998020008555413 steps: 302 lr: 1.6000000000000003e-05 evaluation reward: 4.93 episode: 3591 score: 3.0 memory length: 883398 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.92 episode: 3592 score: 7.0 memory length: 883774 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 376 evaluation reward: 4.93 episode: 3593 score: 3.0 memory length: 884001 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 227 evaluation reward: 4.92 memory length: 884307 episode: 3594 score: 5.0 epsilon: 0.009998020008555413 steps: 306 lr: 1.6000000000000003e-05 evaluation reward: 4.9 episode: 3595 score: 6.0 memory length: 884663 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 356 evaluation reward: 4.92 episode: 3596 score: 3.0 memory length: 884875 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.84 episode: 3597 score: 4.0 memory length: 885135 epsilon: 0.009998020008555413 steps: 260 lr: 1.6000000000000003e-05 evaluation reward: 4.85 episode: 3598 score: 4.0 memory length: 885377 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 242 evaluation reward: 4.85 episode: 3599 score: 8.0 memory length: 885654 epsilon: 0.009998020008555413 steps: 277 lr: 1.6000000000000003e-05 evaluation reward: 4.89

episode: 3600 score: 3.0 memory length: 885866 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 212 evaluation reward: 4.85 episode: 3601 score: 4.0 memory length: 886127 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 261 evaluation reward: 4.86 episode: 3602 score: 3.0 memory length: 886339 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.85 score: 12.0 episode: 3603 memory length: 886641 epsilon: 0.009998020008555413 lr: 1.600000000000003e-05 steps: 302 evaluation reward: 4.93 episode: 3604 memory length: 886988 score: 6.0 epsilon: steps: 347 lr: 1.6000000000000003e-05 0.009998020008555413 evaluation reward: 4.95 memory length: 887361 episode: 3605 score: 6.0 epsilon: 0.009998020008555413 steps: 373 lr: 1.600000000000003e-05 evaluation reward: 4.97 episode: 3606 score: 8.0 memory length: 887638 epsilon: 0.009998020008555413 steps: 277 lr: 1.6000000000000003e-05 evaluation reward: 5.01 episode: 3607 score: 4.0 memory length: 887888 epsilon: 0.009998020008555413 steps: 250 lr: 1.6000000000000003e-05 evaluation reward: 4.99 episode: 3608 score: 6.0 memory length: 888202 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 314 evaluation reward: 4.96 episode: 3609 score: 5.0 memory length: 888482 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 280 evaluation reward: 4.98 episode: 3610 score: 2.0 memory length: 888662 epsilon: 0.009998020008555413 steps: 180 lr: 1.6000000000000003e-05 evaluation reward: 4.94 episode: 3611 score: 7.0 memory length: 889035 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 373 evaluation reward: 4.93 score: 4.0 episode: 3612 memory length: 889273 epsilon: 0.009998020008555413 steps: 238 lr: 1.6000000000000003e-05 evaluation reward: 4.9 episode: 3613 score: 3.0 memory length: 889483 epsilon: 0.009998020008555413 steps: 210 lr: 1.6000000000000003e-05 evaluation reward: 4.86 episode: 3614 score: 3.0 memory length: 889709 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 226 evaluation reward: 4.84 episode: 3615 score: 4.0 memory length: 889969 epsilon: 0.009998020008555413 steps: 260 lr: 1.6000000000000003e-05 evaluation reward: 4.85

memory length: 890237 episode: 3616 score: 5.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 268 evaluation reward: 4.87 episode: 3617 score: 3.0 memory length: 890449 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 212 evaluation reward: 4.87 episode: 3618 score: 4.0 memory length: 890723 epsilon: 0.009998020008555413 steps: 274 lr: 1.6000000000000003e-05 evaluation reward: 4.83 episode: 3619 score: 5.0 memory length: 891002 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 279 evaluation reward: 4.8 episode: 3620 memory length: 891262 score: 4.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 260 evaluation reward: 4.81 memory length: 891569 episode: 3621 score: 5.0 epsilon: 0.009998020008555413 steps: 307 lr: 1.600000000000003e-05 evaluation reward: 4.82 episode: 3622 score: 5.0 memory length: 891874 epsilon: 0.009998020008555413 steps: 305 lr: 1.6000000000000003e-05 evaluation reward: 4.77 episode: 3623 score: 3.0 memory length: 892086 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.76 episode: 3624 score: 4.0 memory length: 892336 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 250 evaluation reward: 4.72 episode: 3625 score: 4.0 memory length: 892592 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 256 evaluation reward: 4.7 episode: 3626 score: 6.0 memory length: 892933 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 341 evaluation reward: 4.71 episode: 3627 score: 7.0 memory length: 893295 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 362 evaluation reward: 4.74 score: 6.0 episode: 3628 memory length: 893624 epsilon: 0.009998020008555413 steps: 329 lr: 1.6000000000000003e-05 evaluation reward: 4.76 episode: 3629 score: 6.0 memory length: 893953 epsilon: 0.009998020008555413 steps: 329 lr: 1.6000000000000003e-05 evaluation reward: 4.79 episode: 3630 score: 5.0 memory length: 894265 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 312 evaluation reward: 4.81 episode: 3631 score: 3.0 memory length: 894493 epsilon: 0.009998020008555413 steps: 228 lr: 1.6000000000000003e-05 evaluation reward: 4.8

episode: 3632 score: 6.0 memory length: 894804 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 311 evaluation reward: 4.82 episode: 3633 score: 7.0 memory length: 895180 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 376 evaluation reward: 4.86 episode: 3634 score: 5.0 memory length: 895452 epsilon: 0.009998020008555413 steps: 272 lr: 1.6000000000000003e-05 evaluation reward: 4.86 episode: 3635 score: 5.0 memory length: 895724 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 272 evaluation reward: 4.85 episode: 3636 memory length: 895936 score: 3.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 212 evaluation reward: 4.85 memory length: 896232 episode: 3637 score: 5.0 epsilon: 0.009998020008555413 steps: 296 lr: 1.600000000000003e-05 evaluation reward: 4.86 episode: 3638 score: 2.0 memory length: 896413 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.85 episode: 3639 score: 2.0 memory length: 896594 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.84 episode: 3640 score: 4.0 memory length: 896854 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 260 evaluation reward: 4.85 episode: 3641 score: 3.0 memory length: 897066 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 212 evaluation reward: 4.85 episode: 3642 score: 4.0 memory length: 897345 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 279 evaluation reward: 4.84 episode: 3643 score: 3.0 memory length: 897573 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 228 evaluation reward: 4.84 score: 6.0 episode: 3644 memory length: 897930 epsilon: 0.009998020008555413 steps: 357 lr: 1.6000000000000003e-05 evaluation reward: 4.86 episode: 3645 score: 2.0 memory length: 898111 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.81 episode: 3646 score: 3.0 memory length: 898323 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 212 evaluation reward: 4.8 episode: 3647 score: 3.0 memory length: 898535 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.79

episode: 3648 score: 2.0 memory length: 898716 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 181 evaluation reward: 4.77 episode: 3649 score: 3.0 memory length: 898928 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 212 evaluation reward: 4.76 episode: 3650 score: 3.0 memory length: 899140 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.76 episode: 3651 score: 4.0 memory length: 899385 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 245 evaluation reward: 4.77 episode: 3652 memory length: 899597 score: 3.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 212 evaluation reward: 4.77 memory length: 899874 episode: 3653 score: 8.0 epsilon: 0.009998020008555413 steps: 277 lr: 1.600000000000003e-05 evaluation reward: 4.82 episode: 3654 score: 8.0 memory length: 900151 epsilon: 0.009998020008555413 steps: 277 lr: 1.6000000000000003e-05 evaluation reward: 4.81 episode: 3655 score: 3.0 memory length: 900380 epsilon: 0.009998020008555413 steps: 229 lr: 1.6000000000000003e-05 evaluation reward: 4.81 episode: 3656 score: 3.0 memory length: 900605 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 225 evaluation reward: 4.81 episode: 3657 score: 5.0 memory length: 900910 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 305 evaluation reward: 4.83 episode: 3658 score: 3.0 memory length: 901122 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 212 evaluation reward: 4.8 episode: 3659 score: 4.0 memory length: 901382 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 260 evaluation reward: 4.81 episode: 3660 score: 6.0 memory length: 901703 epsilon: 0.009998020008555413 steps: 321 lr: 1.6000000000000003e-05 evaluation reward: 4.81 episode: 3661 score: 9.0 memory length: 902009 epsilon: 0.009998020008555413 steps: 306 lr: 1.6000000000000003e-05 evaluation reward: 4.85 episode: 3662 score: 3.0 memory length: 902221 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 212 evaluation reward: 4.77 episode: 3663 score: 3.0 memory length: 902433 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.74

memory length: 902645 episode: 3664 score: 3.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 212 evaluation reward: 4.71 episode: 3665 score: 4.0 memory length: 902890 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 245 evaluation reward: 4.69 episode: 3666 score: 3.0 memory length: 903102 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.68 episode: 3667 score: 4.0 memory length: 903347 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 245 evaluation reward: 4.66 episode: 3668 memory length: 903557 score: 3.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 210 evaluation reward: 4.65 memory length: 903769 episode: 3669 score: 3.0 epsilon: 0.009998020008555413 steps: 212 lr: 1.600000000000003e-05 evaluation reward: 4.65 episode: 3670 score: 3.0 memory length: 903981 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.6 episode: 3671 score: 3.0 memory length: 904208 epsilon: 0.009998020008555413 steps: 227 lr: 1.6000000000000003e-05 evaluation reward: 4.58 episode: 3672 score: 6.0 memory length: 904513 epsilon: 0.009998020008555413 lr: 1.600000000000003e-05 steps: 305 evaluation reward: 4.61 episode: 3673 score: 3.0 memory length: 904725 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 212 evaluation reward: 4.59 memory length: 905073 episode: 3674 score: 10.0 epsilon: 0.009998020008555413 steps: 348 lr: 1.6000000000000003e-05 evaluation reward: 4.64 episode: 3675 score: 5.0 memory length: 905362 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 289 evaluation reward: 4.66 episode: 3676 score: 4.0 memory length: 905607 epsilon: 0.009998020008555413 steps: 245 lr: 1.6000000000000003e-05 evaluation reward: 4.67 episode: 3677 score: 3.0 memory length: 905833 epsilon: 0.009998020008555413 steps: 226 lr: 1.6000000000000003e-05 evaluation reward: 4.65 episode: 3678 score: 7.0 memory length: 906190 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 357 evaluation reward: 4.69 episode: 3679 score: 6.0 memory length: 906503 epsilon: 0.009998020008555413 steps: 313 lr: 1.6000000000000003e-05 evaluation reward: 4.72

memory length: 906874 episode: 3680 score: 7.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 371 evaluation reward: 4.76 episode: 3681 score: 4.0 memory length: 907119 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 245 evaluation reward: 4.74 episode: 3682 score: 3.0 memory length: 907331 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.74 episode: 3683 score: 7.0 memory length: 907665 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 334 evaluation reward: 4.74 episode: 3684 memory length: 908088 score: 8.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 423 evaluation reward: 4.74 memory length: 908367 episode: 3685 score: 4.0 epsilon: 0.009998020008555413 steps: 279 lr: 1.600000000000003e-05 evaluation reward: 4.71 episode: 3686 score: 7.0 memory length: 908721 epsilon: 0.009998020008555413 steps: 354 lr: 1.6000000000000003e-05 evaluation reward: 4.71 episode: 3687 score: 3.0 memory length: 908948 epsilon: 0.009998020008555413 steps: 227 lr: 1.6000000000000003e-05 evaluation reward: 4.65 episode: 3688 score: 4.0 memory length: 909205 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 257 evaluation reward: 4.63 episode: 3689 score: 3.0 memory length: 909417 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 212 evaluation reward: 4.63 memory length: 909649 episode: 3690 score: 3.0 epsilon: 0.009998020008555413 steps: 232 lr: 1.6000000000000003e-05 evaluation reward: 4.54 episode: 3691 score: 5.0 memory length: 909953 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 304 evaluation reward: 4.56 score: 3.0 episode: 3692 memory length: 910165 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.52 episode: 3693 score: 3.0 memory length: 910377 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.52 episode: 3694 score: 4.0 memory length: 910633 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 256 evaluation reward: 4.51 episode: 3695 score: 3.0 memory length: 910843 epsilon: 0.009998020008555413 steps: 210 lr: 1.6000000000000003e-05 evaluation reward: 4.48

memory length: 911053 episode: 3696 score: 3.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 210 evaluation reward: 4.48 episode: 3697 score: 5.0 memory length: 911394 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 341 evaluation reward: 4.49 episode: 3698 score: 6.0 memory length: 911752 epsilon: 0.009998020008555413 steps: 358 lr: 1.6000000000000003e-05 evaluation reward: 4.51 epsilon: episode: 3699 score: 3.0 memory length: 911962 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 210 evaluation reward: 4.46 episode: 3700 memory length: 912236 score: 4.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 274 evaluation reward: 4.47 memory length: 912465 episode: 3701 score: 3.0 epsilon: 0.009998020008555413 steps: 229 lr: 1.600000000000003e-05 evaluation reward: 4.46 episode: 3702 score: 6.0 memory length: 912763 epsilon: 0.009998020008555413 steps: 298 lr: 1.6000000000000003e-05 evaluation reward: 4.49 episode: 3703 score: 5.0 memory length: 913086 epsilon: 0.009998020008555413 steps: 323 lr: 1.6000000000000003e-05 evaluation reward: 4.42 episode: 3704 score: 3.0 memory length: 913298 epsilon: 0.009998020008555413 lr: 1.600000000000003e-05 steps: 212 evaluation reward: 4.39 episode: 3705 score: 3.0 memory length: 913510 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 212 evaluation reward: 4.36 episode: 3706 score: 6.0 memory length: 913837 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 327 evaluation reward: 4.34 episode: 3707 score: 4.0 memory length: 914111 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 274 evaluation reward: 4.34 episode: 3708 score: 5.0 memory length: 914418 epsilon: 0.009998020008555413 steps: 307 lr: 1.6000000000000003e-05 evaluation reward: 4.33 episode: 3709 score: 4.0 memory length: 914679 epsilon: 0.009998020008555413 steps: 261 lr: 1.6000000000000003e-05 evaluation reward: 4.32 episode: 3710 score: 7.0 memory length: 915053 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 374 evaluation reward: 4.37 episode: 3711 score: 3.0 memory length: 915263 epsilon: 0.009998020008555413 steps: 210 lr: 1.6000000000000003e-05 evaluation reward: 4.33

memory length: 915495 episode: 3712 score: 3.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 232 evaluation reward: 4.32 episode: 3713 score: 8.0 memory length: 915772 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 277 evaluation reward: 4.37 episode: 3714 score: 4.0 memory length: 916046 epsilon: 0.009998020008555413 steps: 274 lr: 1.6000000000000003e-05 evaluation reward: 4.38 episode: 3715 score: 3.0 memory length: 916278 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 232 evaluation reward: 4.37 episode: 3716 memory length: 916488 score: 3.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 210 evaluation reward: 4.35 memory length: 916817 episode: 3717 score: 6.0 epsilon: 0.009998020008555413 steps: 329 lr: 1.600000000000003e-05 evaluation reward: 4.38 episode: 3718 score: 7.0 memory length: 917177 epsilon: 0.009998020008555413 steps: 360 lr: 1.6000000000000003e-05 evaluation reward: 4.41 episode: 3719 score: 6.0 memory length: 917486 epsilon: 0.009998020008555413 steps: 309 lr: 1.6000000000000003e-05 evaluation reward: 4.42 episode: 3720 score: 7.0 memory length: 917861 epsilon: 0.009998020008555413 lr: 1.600000000000003e-05 steps: 375 evaluation reward: 4.45 episode: 3721 score: 7.0 memory length: 918197 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 336 evaluation reward: 4.47 memory length: 918676 episode: 3722 score: 9.0 epsilon: 0.009998020008555413 steps: 479 lr: 1.6000000000000003e-05 evaluation reward: 4.51 episode: 3723 score: 8.0 memory length: 919114 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 438 evaluation reward: 4.56 episode: 3724 score: 3.0 memory length: 919346 epsilon: 0.009998020008555413 steps: 232 lr: 1.6000000000000003e-05 evaluation reward: 4.55 episode: 3725 score: 4.0 memory length: 919589 epsilon: 0.009998020008555413 steps: 243 lr: 1.6000000000000003e-05 evaluation reward: 4.55 episode: 3726 score: 4.0 memory length: 919834 epsilon: 0.009998020008555413 steps: 245 lr: 1.6000000000000003e-05 evaluation reward: 4.53 episode: 3727 score: 3.0 memory length: 920046 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.49

memory length: 920278 episode: 3728 score: 3.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 232 evaluation reward: 4.46 episode: 3729 score: 4.0 memory length: 920536 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 258 evaluation reward: 4.44 episode: 3730 score: 4.0 memory length: 920798 epsilon: 0.009998020008555413 steps: 262 lr: 1.6000000000000003e-05 evaluation reward: 4.43 episode: 3731 score: 4.0 memory length: 921072 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 274 evaluation reward: 4.44 episode: 3732 memory length: 921346 score: 4.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 274 evaluation reward: 4.42 memory length: 921698 episode: 3733 score: 7.0 epsilon: 0.009998020008555413 steps: 352 lr: 1.6000000000000003e-05 evaluation reward: 4.42 episode: 3734 score: 10.0 memory length: 922185 epsilon: 0.009998020008555413 steps: 487 lr: 1.6000000000000003e-05 evaluation reward: 4.47 episode: 3735 score: 5.0 memory length: 922478 epsilon: 0.009998020008555413 steps: 293 lr: 1.6000000000000003e-05 evaluation reward: 4.47 episode: 3736 score: 12.0 memory length: 922984 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 506 evaluation reward: 4.56 episode: 3737 score: 9.0 memory length: 923428 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 444 evaluation reward: 4.6 memory length: 923836 episode: 3738 score: 8.0 epsilon: 0.009998020008555413 steps: 408 lr: 1.6000000000000003e-05 evaluation reward: 4.66 episode: 3739 score: 5.0 memory length: 924116 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 280 evaluation reward: 4.69 score: 8.0 episode: 3740 memory length: 924522 epsilon: 0.009998020008555413 steps: 406 lr: 1.6000000000000003e-05 evaluation reward: 4.73 episode: 3741 score: 3.0 memory length: 924734 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 4.73 episode: 3742 memory length: 925036 score: 12.0 0.009998020008555413 steps: 302 lr: 1.6000000000000003e-05 evaluation reward: 4.81 episode: 3743 score: 4.0 memory length: 925315 epsilon: 0.009998020008555413 steps: 279 lr: 1.6000000000000003e-05 evaluation reward: 4.82

memory length: 925589 episode: 3744 score: 4.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 274 evaluation reward: 4.8 episode: 3745 score: 4.0 memory length: 925849 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 260 evaluation reward: 4.82 episode: 3746 score: 3.0 memory length: 926059 epsilon: 0.009998020008555413 steps: 210 lr: 1.6000000000000003e-05 evaluation reward: 4.82 episode: 3747 score: 9.0 memory length: 926464 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 405 evaluation reward: 4.88 episode: 3748 memory length: 926748 score: 5.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 284 evaluation reward: 4.91 memory length: 926958 episode: 3749 score: 3.0 epsilon: 0.009998020008555413 steps: 210 lr: 1.600000000000003e-05 evaluation reward: 4.91 episode: 3750 score: 2.0 memory length: 927139 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 4.9 episode: 3751 score: 7.0 memory length: 927491 epsilon: 0.009998020008555413 steps: 352 lr: 1.6000000000000003e-05 evaluation reward: 4.93 episode: 3752 score: 7.0 memory length: 927867 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 376 evaluation reward: 4.97 episode: 3753 score: 3.0 memory length: 928077 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 210 evaluation reward: 4.92 episode: 3754 score: 7.0 memory length: 928436 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 359 evaluation reward: 4.91 episode: 3755 score: 4.0 memory length: 928690 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 254 evaluation reward: 4.92 episode: 3756 score: 7.0 memory length: 929042 epsilon: 0.009998020008555413 steps: 352 lr: 1.6000000000000003e-05 evaluation reward: 4.96 episode: 3757 score: 5.0 memory length: 929347 epsilon: 0.009998020008555413 steps: 305 lr: 1.6000000000000003e-05 evaluation reward: 4.96 episode: 3758 score: 4.0 memory length: 929607 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 260 evaluation reward: 4.97 episode: 3759 score: 4.0 memory length: 929864 epsilon: 0.009998020008555413 steps: 257 lr: 1.6000000000000003e-05 evaluation reward: 4.97

memory length: 930045 episode: 3760 score: 2.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 181 evaluation reward: 4.93 episode: 3761 score: 3.0 memory length: 930273 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 228 evaluation reward: 4.87 episode: 3762 score: 4.0 memory length: 930531 epsilon: 0.009998020008555413 steps: 258 lr: 1.6000000000000003e-05 evaluation reward: 4.88 episode: 3763 score: 9.0 memory length: 930955 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 424 evaluation reward: 4.94 episode: 3764 memory length: 931336 score: 7.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 381 evaluation reward: 4.98 memory length: 931672 episode: 3765 score: 7.0 epsilon: 0.009998020008555413 steps: 336 lr: 1.600000000000003e-05 evaluation reward: 5.01 episode: 3766 score: 6.0 memory length: 932001 epsilon: 0.009998020008555413 steps: 329 lr: 1.6000000000000003e-05 evaluation reward: 5.04 episode: 3767 score: 6.0 memory length: 932330 epsilon: 0.009998020008555413 steps: 329 lr: 1.6000000000000003e-05 evaluation reward: 5.06 episode: 3768 score: 5.0 memory length: 932610 epsilon: steps: 280 lr: 1.600000000000003e-05 0.009998020008555413 evaluation reward: 5.08 episode: 3769 score: 7.0 memory length: 932986 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 376 evaluation reward: 5.12 memory length: 933214 episode: 3770 score: 3.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 228 evaluation reward: 5.12 episode: 3771 score: 9.0 memory length: 933620 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 406 evaluation reward: 5.18 episode: 3772 score: 6.0 memory length: 933943 epsilon: 0.009998020008555413 steps: 323 lr: 1.6000000000000003e-05 evaluation reward: 5.18 episode: 3773 score: 5.0 memory length: 934242 epsilon: 0.009998020008555413 steps: 299 lr: 1.6000000000000003e-05 evaluation reward: 5.2 episode: 3774 score: 8.0 memory length: 934669 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 427 evaluation reward: 5.18 episode: 3775 score: 7.0 memory length: 935032 epsilon: 0.009998020008555413 steps: 363 lr: 1.6000000000000003e-05 evaluation reward: 5.2

memory length: 935312 episode: 3776 score: 5.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 280 evaluation reward: 5.21 episode: 3777 score: 7.0 memory length: 935664 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 352 evaluation reward: 5.25 episode: 3778 score: 7.0 memory length: 936048 epsilon: 0.009998020008555413 steps: 384 lr: 1.6000000000000003e-05 evaluation reward: 5.25 episode: 3779 score: 6.0 memory length: 936371 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 323 evaluation reward: 5.25 episode: 3780 memory length: 936882 score: 11.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 511 evaluation reward: 5.29 memory length: 937207 episode: 3781 score: 5.0 epsilon: 0.009998020008555413 steps: 325 lr: 1.600000000000003e-05 evaluation reward: 5.3 episode: 3782 score: 7.0 memory length: 937602 epsilon: 0.009998020008555413 steps: 395 lr: 1.6000000000000003e-05 evaluation reward: 5.34 episode: 3783 score: 9.0 memory length: 938025 epsilon: 0.009998020008555413 steps: 423 lr: 1.6000000000000003e-05 evaluation reward: 5.36 episode: 3784 memory length: 938206 score: 2.0 epsilon: steps: 181 lr: 1.600000000000003e-05 0.009998020008555413 evaluation reward: 5.3 episode: 3785 score: 7.0 memory length: 938560 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 354 evaluation reward: 5.33 memory length: 939095 episode: 3786 score: 11.0 epsilon: 0.009998020008555413 steps: 535 lr: 1.6000000000000003e-05 evaluation reward: 5.37 episode: 3787 score: 2.0 memory length: 939292 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 197 evaluation reward: 5.36 episode: 3788 score: 5.0 memory length: 939620 epsilon: 0.009998020008555413 steps: 328 lr: 1.6000000000000003e-05 evaluation reward: 5.37 episode: 3789 score: 6.0 memory length: 939934 epsilon: 0.009998020008555413 steps: 314 lr: 1.6000000000000003e-05 evaluation reward: 5.4 episode: 3790 score: 5.0 memory length: 940241 epsilon: 0.009998020008555413 steps: 307 lr: 1.6000000000000003e-05 evaluation reward: 5.42 episode: 3791 score: 6.0 memory length: 940546 epsilon: 0.009998020008555413 steps: 305 lr: 1.6000000000000003e-05 evaluation reward: 5.43

memory length: 940885 episode: 3792 score: 6.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 339 evaluation reward: 5.46 episode: 3793 score: 7.0 memory length: 941312 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 427 evaluation reward: 5.5 episode: 3794 score: 7.0 memory length: 941707 epsilon: 0.009998020008555413 steps: 395 lr: 1.6000000000000003e-05 evaluation reward: 5.53 episode: 3795 score: 7.0 memory length: 942099 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 392 evaluation reward: 5.57 episode: 3796 memory length: 942373 score: 4.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 274 evaluation reward: 5.58 memory length: 942646 episode: 3797 score: 4.0 epsilon: 0.009998020008555413 steps: 273 lr: 1.600000000000003e-05 evaluation reward: 5.57 episode: 3798 score: 2.0 memory length: 942827 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 5.53 episode: 3799 score: 5.0 memory length: 943099 epsilon: 0.009998020008555413 steps: 272 lr: 1.6000000000000003e-05 evaluation reward: 5.55 episode: 3800 score: 5.0 memory length: 943409 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 310 evaluation reward: 5.56 episode: 3801 score: 4.0 memory length: 943683 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 274 evaluation reward: 5.57 memory length: 944127 episode: 3802 score: 8.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 444 evaluation reward: 5.59 episode: 3803 memory length: 944739 score: 14.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 612 evaluation reward: 5.68 score: 5.0 episode: 3804 memory length: 945019 0.009998020008555413 steps: 280 lr: 1.6000000000000003e-05 evaluation reward: 5.7 episode: 3805 score: 7.0 memory length: 945373 epsilon: 0.009998020008555413 steps: 354 lr: 1.6000000000000003e-05 evaluation reward: 5.74 episode: 3806 score: 5.0 memory length: 945653 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 280 evaluation reward: 5.73 episode: 3807 score: 3.0 memory length: 945865 epsilon: 0.009998020008555413 steps: 212 lr: 1.6000000000000003e-05 evaluation reward: 5.72

memory length: 946125 episode: 3808 score: 4.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 260 evaluation reward: 5.71 episode: 3809 score: 3.0 memory length: 946355 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 230 evaluation reward: 5.7 episode: 3810 score: 5.0 memory length: 946662 epsilon: 0.009998020008555413 steps: 307 lr: 1.6000000000000003e-05 evaluation reward: 5.68 episode: 3811 score: 3.0 memory length: 946892 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 230 evaluation reward: 5.68 episode: 3812 memory length: 947122 score: 3.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 230 evaluation reward: 5.68 memory length: 947395 episode: 3813 score: 4.0 epsilon: 0.009998020008555413 steps: 273 lr: 1.600000000000003e-05 evaluation reward: 5.64 episode: 3814 score: 3.0 memory length: 947625 epsilon: 0.009998020008555413 steps: 230 lr: 1.6000000000000003e-05 evaluation reward: 5.63 episode: 3815 score: 5.0 memory length: 947905 epsilon: 0.009998020008555413 steps: 280 lr: 1.6000000000000003e-05 evaluation reward: 5.65 episode: 3816 score: 4.0 memory length: 948164 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 259 evaluation reward: 5.66 episode: 3817 score: 6.0 memory length: 948476 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 312 evaluation reward: 5.66 memory length: 948717 episode: 3818 score: 4.0 epsilon: 0.009998020008555413 steps: 241 lr: 1.6000000000000003e-05 evaluation reward: 5.63 episode: 3819 score: 5.0 memory length: 948997 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 280 evaluation reward: 5.62 score: 6.0 episode: 3820 memory length: 949302 epsilon: 0.009998020008555413 steps: 305 lr: 1.6000000000000003e-05 evaluation reward: 5.61 episode: 3821 score: 8.0 memory length: 949579 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 277 evaluation reward: 5.62 episode: 3822 score: 5.0 memory length: 949859 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 280 evaluation reward: 5.58 episode: 3823 score: 5.0 memory length: 950140 epsilon: 0.009998020008555413 steps: 281 lr: 1.6000000000000003e-05 evaluation reward: 5.55

memory length: 950417 episode: 3824 score: 8.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 277 evaluation reward: 5.6 episode: 3825 score: 6.0 memory length: 950757 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 340 evaluation reward: 5.62 episode: 3826 score: 5.0 memory length: 951047 epsilon: 0.009998020008555413 steps: 290 lr: 1.6000000000000003e-05 evaluation reward: 5.63 episode: 3827 score: 9.0 memory length: 951487 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 440 evaluation reward: 5.69 episode: 3828 memory length: 951699 score: 3.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 212 evaluation reward: 5.69 memory length: 951979 episode: 3829 score: 5.0 epsilon: 0.009998020008555413 steps: 280 lr: 1.600000000000003e-05 evaluation reward: 5.7 episode: 3830 score: 2.0 memory length: 952160 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 5.68 episode: 3831 score: 5.0 memory length: 952432 epsilon: 0.009998020008555413 steps: 272 lr: 1.6000000000000003e-05 evaluation reward: 5.69 episode: 3832 score: 9.0 memory length: 952731 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 299 evaluation reward: 5.74 episode: 3833 score: 2.0 memory length: 952913 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 182 evaluation reward: 5.69 memory length: 953193 episode: 3834 score: 5.0 epsilon: 0.009998020008555413 steps: 280 lr: 1.6000000000000003e-05 evaluation reward: 5.64 episode: 3835 score: 2.0 memory length: 953374 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 181 evaluation reward: 5.61 episode: 3836 score: 4.0 memory length: 953617 epsilon: 0.009998020008555413 steps: 243 lr: 1.6000000000000003e-05 evaluation reward: 5.53 episode: 3837 score: 3.0 memory length: 953847 epsilon: 0.009998020008555413 steps: 230 lr: 1.6000000000000003e-05 evaluation reward: 5.47 episode: 3838 score: 9.0 memory length: 954146 epsilon: 0.009998020008555413 steps: 299 lr: 1.6000000000000003e-05 evaluation reward: 5.48 episode: 3839 score: 5.0 memory length: 954426 epsilon: 0.009998020008555413 steps: 280 lr: 1.6000000000000003e-05 evaluation reward: 5.48

memory length: 954716 episode: 3840 score: 5.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 290 evaluation reward: 5.45 episode: 3841 score: 8.0 memory length: 954986 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 270 evaluation reward: 5.5 episode: 3842 score: 6.0 memory length: 955297 epsilon: 0.009998020008555413 steps: 311 lr: 1.6000000000000003e-05 evaluation reward: 5.44 episode: 3843 score: 4.0 memory length: 955572 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 275 evaluation reward: 5.44 episode: 3844 memory length: 955962 score: 8.0 epsilon: steps: 390 lr: 1.6000000000000003e-05 0.009998020008555413 evaluation reward: 5.48 memory length: 956174 episode: 3845 score: 3.0 epsilon: 0.009998020008555413 steps: 212 lr: 1.600000000000003e-05 evaluation reward: 5.47 episode: 3846 score: 9.0 memory length: 956473 epsilon: 0.009998020008555413 steps: 299 lr: 1.6000000000000003e-05 evaluation reward: 5.53 episode: 3847 score: 2.0 memory length: 956654 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 5.46 episode: 3848 memory length: 956835 score: 2.0 epsilon: steps: 181 lr: 1.600000000000003e-05 0.009998020008555413 evaluation reward: 5.43 episode: 3849 score: 2.0 memory length: 957016 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 181 evaluation reward: 5.42 episode: 3850 score: 4.0 memory length: 957261 epsilon: 0.009998020008555413 steps: 245 lr: 1.6000000000000003e-05 evaluation reward: 5.44 episode: 3851 score: 5.0 memory length: 957541 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 280 evaluation reward: 5.42 episode: 3852 score: 6.0 memory length: 957850 epsilon: 0.009998020008555413 steps: 309 lr: 1.6000000000000003e-05 evaluation reward: 5.41 episode: 3853 score: 6.0 memory length: 958159 epsilon: 0.009998020008555413 steps: 309 lr: 1.6000000000000003e-05 evaluation reward: 5.44 episode: 3854 score: 7.0 memory length: 958537 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 378 evaluation reward: 5.44 episode: 3855 score: 6.0 memory length: 958846 epsilon: 0.009998020008555413 steps: 309 lr: 1.6000000000000003e-05 evaluation reward: 5.46

memory length: 959027 episode: 3856 score: 2.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 181 evaluation reward: 5.41 episode: 3857 score: 12.0 memory length: 959451 epsilon: 0.009998020008555413 steps: 424 lr: 1.6000000000000003e-05 evaluation reward: 5.48 episode: 3858 score: 6.0 memory length: 959780 epsilon: 0.009998020008555413 steps: 329 lr: 1.6000000000000003e-05 evaluation reward: 5.5 episode: 3859 score: 3.0 memory length: 960025 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 245 evaluation reward: 5.49 episode: 3860 memory length: 960305 score: 5.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 280 evaluation reward: 5.52 memory length: 960567 episode: 3861 score: 4.0 epsilon: 0.009998020008555413 steps: 262 lr: 1.600000000000003e-05 evaluation reward: 5.53 episode: 3862 score: 5.0 memory length: 960849 epsilon: 0.009998020008555413 steps: 282 lr: 1.6000000000000003e-05 evaluation reward: 5.54 episode: 3863 score: 6.0 memory length: 961158 epsilon: 0.009998020008555413 steps: 309 lr: 1.6000000000000003e-05 evaluation reward: 5.51 episode: 3864 score: 9.0 memory length: 961582 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 424 evaluation reward: 5.53 episode: 3865 score: 6.0 memory length: 961894 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 312 evaluation reward: 5.52 memory length: 962174 episode: 3866 score: 5.0 epsilon: 0.009998020008555413 steps: 280 lr: 1.6000000000000003e-05 evaluation reward: 5.51 episode: 3867 score: 2.0 memory length: 962355 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 181 evaluation reward: 5.47 episode: 3868 score: 9.0 memory length: 962770 epsilon: 0.009998020008555413 steps: 415 lr: 1.6000000000000003e-05 evaluation reward: 5.51 episode: 3869 score: 2.0 memory length: 962951 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 5.46 episode: 3870 score: 4.0 memory length: 963196 0.009998020008555413 steps: 245 lr: 1.6000000000000003e-05 evaluation reward: 5.47 episode: 3871 score: 5.0 memory length: 963476 epsilon: 0.009998020008555413 steps: 280 lr: 1.6000000000000003e-05 evaluation reward: 5.43

memory length: 963871 episode: 3872 score: 8.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 395 evaluation reward: 5.45 episode: 3873 score: 7.0 memory length: 964244 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 373 evaluation reward: 5.47 episode: 3874 score: 2.0 memory length: 964425 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 5.41 episode: 3875 score: 5.0 memory length: 964705 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 280 evaluation reward: 5.39 episode: 3876 memory length: 964886 score: 2.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 181 evaluation reward: 5.36 memory length: 965067 episode: 3877 score: 2.0 epsilon: 0.009998020008555413 steps: 181 lr: 1.600000000000003e-05 evaluation reward: 5.31 episode: 3878 score: 4.0 memory length: 965328 epsilon: 0.009998020008555413 steps: 261 lr: 1.6000000000000003e-05 evaluation reward: 5.28 episode: 3879 score: 2.0 memory length: 965509 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 5.24 episode: 3880 score: 2.0 memory length: 965690 epsilon: steps: 181 lr: 1.600000000000003e-05 0.009998020008555413 evaluation reward: 5.15 episode: 3881 score: 7.0 memory length: 966066 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 376 evaluation reward: 5.17 episode: 3882 score: 3.0 memory length: 966291 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 225 evaluation reward: 5.13 episode: 3883 score: 4.0 memory length: 966534 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 243 evaluation reward: 5.08 episode: 3884 score: 2.0 memory length: 966715 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 5.08 episode: 3885 score: 6.0 memory length: 967042 epsilon: 0.009998020008555413 steps: 327 lr: 1.6000000000000003e-05 evaluation reward: 5.07 episode: 3886 score: 2.0 memory length: 967223 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 181 evaluation reward: 4.98 episode: 3887 score: 5.0 memory length: 967550 epsilon: 0.009998020008555413 steps: 327 lr: 1.6000000000000003e-05 evaluation reward: 5.01

memory length: 967779 episode: 3888 score: 3.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 229 evaluation reward: 4.99 episode: 3889 score: 8.0 memory length: 968188 epsilon: 0.009998020008555413 steps: 409 lr: 1.6000000000000003e-05 evaluation reward: 5.01 episode: 3890 score: 4.0 memory length: 968438 epsilon: 0.009998020008555413 steps: 250 lr: 1.6000000000000003e-05 evaluation reward: 5.0 episode: 3891 score: 6.0 memory length: 968783 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 345 evaluation reward: 5.0 episode: 3892 memory length: 969210 score: 9.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 427 evaluation reward: 5.03 memory length: 969519 episode: 3893 score: 6.0 epsilon: 0.009998020008555413 steps: 309 lr: 1.600000000000003e-05 evaluation reward: 5.02 episode: 3894 score: 5.0 memory length: 969817 epsilon: 0.009998020008555413 steps: 298 lr: 1.6000000000000003e-05 evaluation reward: 5.0 episode: 3895 score: 8.0 memory length: 970224 epsilon: 0.009998020008555413 steps: 407 lr: 1.6000000000000003e-05 evaluation reward: 5.01 episode: 3896 score: 5.0 memory length: 970504 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 280 evaluation reward: 5.02 episode: 3897 score: 2.0 memory length: 970685 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 181 evaluation reward: 5.0 memory length: 970965 episode: 3898 score: 5.0 epsilon: 0.009998020008555413 steps: 280 lr: 1.6000000000000003e-05 evaluation reward: 5.03 episode: 3899 score: 15.0 memory length: 971367 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 402 evaluation reward: 5.13 episode: 3900 score: 6.0 memory length: 971714 0.009998020008555413 steps: 347 lr: 1.6000000000000003e-05 evaluation reward: 5.14 episode: 3901 score: 5.0 memory length: 971993 epsilon: 0.009998020008555413 steps: 279 lr: 1.6000000000000003e-05 evaluation reward: 5.15 episode: 3902 score: 4.0 memory length: 972236 epsilon: 0.009998020008555413 steps: 243 lr: 1.6000000000000003e-05 evaluation reward: 5.11 episode: 3903 score: 4.0 memory length: 972479 epsilon: 0.009998020008555413 steps: 243 lr: 1.6000000000000003e-05 evaluation reward: 5.01

memory length: 972885 episode: 3904 score: 7.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 406 evaluation reward: 5.03 episode: 3905 score: 7.0 memory length: 973244 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 359 evaluation reward: 5.03 episode: 3906 score: 6.0 memory length: 973589 epsilon: 0.009998020008555413 steps: 345 lr: 1.6000000000000003e-05 evaluation reward: 5.04 episode: 3907 score: 6.0 memory length: 973914 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 325 evaluation reward: 5.07 episode: 3908 memory length: 974227 score: 6.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 313 evaluation reward: 5.09 memory length: 974536 episode: 3909 score: 6.0 epsilon: 0.009998020008555413 steps: 309 lr: 1.600000000000003e-05 evaluation reward: 5.12 episode: 3910 score: 8.0 memory length: 974980 epsilon: 0.009998020008555413 steps: 444 lr: 1.6000000000000003e-05 evaluation reward: 5.15 episode: 3911 score: 5.0 memory length: 975260 epsilon: 0.009998020008555413 steps: 280 lr: 1.6000000000000003e-05 evaluation reward: 5.17 episode: 3912 score: 11.0 memory length: 975734 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 474 evaluation reward: 5.25 episode: 3913 score: 6.0 memory length: 976032 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 298 evaluation reward: 5.27 episode: 3914 score: 7.0 memory length: 976368 epsilon: 0.009998020008555413 steps: 336 lr: 1.6000000000000003e-05 evaluation reward: 5.31 episode: 3915 score: 7.0 memory length: 976704 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 336 evaluation reward: 5.33 episode: 3916 score: 6.0 memory length: 977013 epsilon: 0.009998020008555413 steps: 309 lr: 1.6000000000000003e-05 evaluation reward: 5.35 episode: 3917 score: 7.0 memory length: 977366 epsilon: 0.009998020008555413 steps: 353 lr: 1.6000000000000003e-05 evaluation reward: 5.36 episode: 3918 score: 3.0 memory length: 977611 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 245 evaluation reward: 5.35 episode: 3919 score: 8.0 memory length: 977888 epsilon: 0.009998020008555413 steps: 277 lr: 1.6000000000000003e-05 evaluation reward: 5.38

memory length: 978133 episode: 3920 score: 3.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 245 evaluation reward: 5.35 episode: 3921 score: 6.0 memory length: 978445 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 312 evaluation reward: 5.33 episode: 3922 score: 8.0 memory length: 978722 epsilon: 0.009998020008555413 steps: 277 lr: 1.6000000000000003e-05 evaluation reward: 5.36 episode: 3923 score: 7.0 memory length: 979063 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 341 evaluation reward: 5.38 episode: 3924 memory length: 979290 score: 3.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 227 evaluation reward: 5.33 memory length: 979694 episode: 3925 score: 9.0 epsilon: 0.009998020008555413 steps: 404 lr: 1.600000000000003e-05 evaluation reward: 5.36 episode: 3926 score: 7.0 memory length: 980054 epsilon: 0.009998020008555413 steps: 360 lr: 1.6000000000000003e-05 evaluation reward: 5.38 episode: 3927 score: 6.0 memory length: 980363 epsilon: 0.009998020008555413 steps: 309 lr: 1.6000000000000003e-05 evaluation reward: 5.35 episode: 3928 score: 4.0 memory length: 980613 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 250 evaluation reward: 5.36 episode: 3929 score: 5.0 memory length: 980893 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 280 evaluation reward: 5.36 episode: 3930 memory length: 981074 score: 2.0 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 5.36 episode: 3931 memory length: 981430 score: 10.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 356 evaluation reward: 5.41 episode: 3932 score: 4.0 memory length: 981688 0.009998020008555413 steps: 258 lr: 1.6000000000000003e-05 evaluation reward: 5.36 episode: 3933 score: 15.0 memory length: 982234 epsilon: 0.009998020008555413 steps: 546 lr: 1.6000000000000003e-05 evaluation reward: 5.49 episode: 3934 score: 6.0 memory length: 982590 epsilon: 0.009998020008555413 steps: 356 lr: 1.6000000000000003e-05 evaluation reward: 5.5 episode: 3935 score: 6.0 memory length: 982895 epsilon: 0.009998020008555413 steps: 305 lr: 1.6000000000000003e-05 evaluation reward: 5.54

memory length: 983169 episode: 3936 score: 4.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 274 evaluation reward: 5.54 episode: 3937 score: 3.0 memory length: 983401 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 232 evaluation reward: 5.54 episode: 3938 score: 5.0 memory length: 983668 epsilon: 0.009998020008555413 steps: 267 lr: 1.6000000000000003e-05 evaluation reward: 5.5 episode: 3939 score: 2.0 memory length: 983849 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 181 evaluation reward: 5.47 episode: 3940 memory length: 984030 score: 2.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 181 evaluation reward: 5.44 memory length: 984227 episode: 3941 score: 2.0 epsilon: 0.009998020008555413 steps: 197 lr: 1.600000000000003e-05 evaluation reward: 5.38 episode: 3942 score: 3.0 memory length: 984453 epsilon: 0.009998020008555413 steps: 226 lr: 1.6000000000000003e-05 evaluation reward: 5.35 episode: 3943 score: 2.0 memory length: 984634 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 5.33 episode: 3944 score: 4.0 memory length: 984884 epsilon: steps: 250 lr: 1.600000000000003e-05 0.009998020008555413 evaluation reward: 5.29 episode: 3945 score: 4.0 memory length: 985160 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 276 evaluation reward: 5.3 episode: 3946 score: 5.0 memory length: 985458 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 298 evaluation reward: 5.26 episode: 3947 score: 3.0 memory length: 985686 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 228 evaluation reward: 5.27 score: 4.0 episode: 3948 memory length: 985931 epsilon: 0.009998020008555413 steps: 245 lr: 1.6000000000000003e-05 evaluation reward: 5.29 episode: 3949 score: 7.0 memory length: 986327 epsilon: 0.009998020008555413 steps: 396 lr: 1.6000000000000003e-05 evaluation reward: 5.34 episode: 3950 score: 7.0 memory length: 986691 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 364 evaluation reward: 5.37 episode: 3951 score: 3.0 memory length: 986923 epsilon: 0.009998020008555413 steps: 232 lr: 1.6000000000000003e-05 evaluation reward: 5.35

memory length: 987430 episode: 3952 score: 12.0 epsilon: 0.009998020008555413 steps: 507 lr: 1.600000000000003e-05 evaluation reward: 5.41 episode: 3953 score: 6.0 memory length: 987755 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 325 evaluation reward: 5.41 episode: 3954 score: 2.0 memory length: 987936 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 5.36 episode: 3955 score: 4.0 memory length: 988210 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 274 evaluation reward: 5.34 episode: 3956 memory length: 988494 score: 5.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 284 evaluation reward: 5.37 memory length: 988862 episode: 3957 score: 7.0 epsilon: 0.009998020008555413 steps: 368 lr: 1.600000000000003e-05 evaluation reward: 5.32 episode: 3958 score: 2.0 memory length: 989043 epsilon: 0.009998020008555413 steps: 181 lr: 1.6000000000000003e-05 evaluation reward: 5.28 episode: 3959 score: 9.0 memory length: 989467 epsilon: 0.009998020008555413 steps: 424 lr: 1.6000000000000003e-05 evaluation reward: 5.34 episode: 3960 score: 2.0 memory length: 989664 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 197 evaluation reward: 5.31 episode: 3961 score: 3.0 memory length: 989891 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 227 evaluation reward: 5.3 memory length: 990088 episode: 3962 score: 2.0 epsilon: 0.009998020008555413 steps: 197 lr: 1.6000000000000003e-05 evaluation reward: 5.27 episode: 3963 score: 9.0 memory length: 990512 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 424 evaluation reward: 5.3 score: 6.0 episode: 3964 memory length: 990810 epsilon: 0.009998020008555413 steps: 298 lr: 1.6000000000000003e-05 evaluation reward: 5.27 episode: 3965 score: 7.0 memory length: 991215 epsilon: 0.009998020008555413 steps: 405 lr: 1.6000000000000003e-05 evaluation reward: 5.28 episode: 3966 score: 13.0 memory length: 991781 0.009998020008555413 steps: 566 lr: 1.6000000000000003e-05 evaluation reward: 5.36 episode: 3967 score: 10.0 memory length: 992273 epsilon: 0.009998020008555413 steps: 492 lr: 1.6000000000000003e-05 evaluation reward: 5.44

memory length: 992600 episode: 3968 score: 6.0 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 327 evaluation reward: 5.41 episode: 3969 score: 6.0 memory length: 992975 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 375 evaluation reward: 5.45 episode: 3970 score: 9.0 memory length: 993381 epsilon: 0.009998020008555413 steps: 406 lr: 1.6000000000000003e-05 evaluation reward: 5.5 episode: 3971 score: 8.0 memory length: 993754 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 373 evaluation reward: 5.53 episode: 3972 memory length: 994108 score: 7.0 epsilon: steps: 354 lr: 1.6000000000000003e-05 0.009998020008555413 evaluation reward: 5.52 memory length: 994501 episode: 3973 score: 7.0 epsilon: 0.009998020008555413 steps: 393 lr: 1.600000000000003e-05 evaluation reward: 5.52 episode: 3974 score: 3.0 memory length: 994729 epsilon: 0.009998020008555413 steps: 228 lr: 1.6000000000000003e-05 evaluation reward: 5.53 episode: 3975 score: 12.0 memory length: 995244 epsilon: 0.009998020008555413 steps: 515 lr: 1.6000000000000003e-05 evaluation reward: 5.6 episode: 3976 score: 9.0 memory length: 995692 epsilon: lr: 1.600000000000003e-05 0.009998020008555413 steps: 448 evaluation reward: 5.67 episode: 3977 score: 6.0 memory length: 996035 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 343 evaluation reward: 5.71 memory length: 996441 episode: 3978 score: 8.0 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 406 evaluation reward: 5.75 episode: 3979 score: 8.0 memory length: 996848 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 407 evaluation reward: 5.81 episode: 3980 score: 7.0 memory length: 997204 epsilon: 0.009998020008555413 steps: 356 lr: 1.6000000000000003e-05 evaluation reward: 5.86 episode: 3981 score: 7.0 memory length: 997562 epsilon: 0.009998020008555413 steps: 358 lr: 1.6000000000000003e-05 evaluation reward: 5.86 episode: 3982 score: 7.0 memory length: 997902 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 340 evaluation reward: 5.9 episode: 3983 score: 11.0 memory length: 998373 epsilon: 0.009998020008555413 steps: 471 lr: 1.6000000000000003e-05 evaluation reward: 5.97

episode: 3984 score: 6.0 memory length: 998686 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 313 evaluation reward: 6.01 episode: 3985 score: 9.0 memory length: 999092 epsilon: 0.009998020008555413 lr: 1.6000000000000003e-05 steps: 406 evaluation reward: 6.04 episode: 3986 score: 6.0 memory length: 999405 epsilon: 0.009998020008555413 steps: 313 lr: 1.6000000000000003e-05 evaluation reward: 6.08 episode: 3987 score: 6.0 memory length: 999728 epsilon: lr: 1.6000000000000003e-05 0.009998020008555413 steps: 323 evaluation reward: 6.09 episode: 3988 memory length: 1000000 score: 7.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 371 evaluation reward: 6.13 memory length: 1000000 episode: 3989 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 6.40000000000001e-06 evaluation reward: 6.08 memory length: 1000000 episode: 3990 score: 6.0 epsilon: 0.009998020008555413 steps: 323 lr: 6.40000000000001e-06 evaluation reward: 6.1 episode: 3991 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 305 lr: 6.40000000000001e-06 evaluation reward: 6.1 episode: 3992 score: 10.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 454 evaluation reward: 6.11 episode: 3993 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 454 evaluation reward: 6.15 memory length: 1000000 episode: 3994 score: 7.0 epsilon: 0.009998020008555413 steps: 352 lr: 6.40000000000001e-06 evaluation reward: 6.17 episode: 3995 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 436 evaluation reward: 6.19 score: 6.0 episode: 3996 memory length: 1000000 0.009998020008555413 steps: 316 lr: 6.40000000000001e-06 evaluation reward: 6.2 episode: 3997 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 256 lr: 6.40000000000001e-06 evaluation reward: 6.22 episode: 3998 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 313 evaluation reward: 6.23 episode: 3999 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 276 lr: 6.40000000000001e-06 evaluation reward: 6.12

epsilon: episode: 4000 score: 6.0 memory length: 1000000 lr: 6.40000000000001e-06 0.009998020008555413 steps: 313 evaluation reward: 6.12 episode: 4001 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 313 evaluation reward: 6.13 episode: 4002 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 6.18 episode: 4003 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 313 evaluation reward: 6.2 episode: 4004 memory length: 1000000 score: 6.0 epsilon: steps: 356 lr: 6.40000000000001e-06 0.009998020008555413 evaluation reward: 6.19 memory length: 1000000 episode: 4005 score: 10.0 epsilon: 0.009998020008555413 steps: 473 lr: 6.40000000000001e-06 evaluation reward: 6.22 episode: 4006 memory length: 1000000 score: 5.0 epsilon: 0.009998020008555413 steps: 310 lr: 6.40000000000001e-06 evaluation reward: 6.21 episode: 4007 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 181 lr: 6.40000000000001e-06 evaluation reward: 6.17 episode: 4008 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 323 evaluation reward: 6.17 episode: 4009 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 451 evaluation reward: 6.19 memory length: 1000000 episode: 4010 score: 8.0 epsilon: 0.009998020008555413 steps: 439 lr: 6.40000000000001e-06 evaluation reward: 6.19 episode: 4011 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 381 evaluation reward: 6.22 episode: 4012 score: 6.0 memory length: 1000000 0.009998020008555413 steps: 313 lr: 6.40000000000001e-06 evaluation reward: 6.17 episode: 4013 score: 12.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 498 lr: 6.40000000000001e-06 evaluation reward: 6.23 episode: 4014 score: 9.0 memory length: 1000000 0.009998020008555413 lr: 6.40000000000001e-06 steps: 424 evaluation reward: 6.25 episode: 4015 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 442 lr: 6.40000000000001e-06 evaluation reward: 6.26

memory length: 1000000 epsilon: episode: 4016 score: 9.0 0.009998020008555413 lr: 6.40000000000001e-06 steps: 424 evaluation reward: 6.29 episode: 4017 score: 8.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 381 evaluation reward: 6.3 episode: 4018 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 334 lr: 6.40000000000001e-06 evaluation reward: 6.34 episode: 4019 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 305 evaluation reward: 6.32 episode: 4020 memory length: 1000000 score: 9.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 424 evaluation reward: 6.38 memory length: 1000000 episode: 4021 score: 10.0 epsilon: 0.009998020008555413 steps: 451 lr: 6.40000000000001e-06 evaluation reward: 6.42 memory length: 1000000 episode: 4022 score: 6.0 epsilon: 0.009998020008555413 steps: 323 lr: 6.40000000000001e-06 evaluation reward: 6.4 episode: 4023 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 6.42 episode: 4024 score: 4.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 279 evaluation reward: 6.43 episode: 4025 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 424 evaluation reward: 6.43 memory length: 1000000 episode: 4026 score: 6.0 epsilon: 0.009998020008555413 steps: 345 lr: 6.40000000000001e-06 evaluation reward: 6.42 episode: 4027 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 436 evaluation reward: 6.46 episode: 4028 score: 3.0 memory length: 1000000 0.009998020008555413 steps: 249 lr: 6.40000000000001e-06 evaluation reward: 6.45 episode: 4029 score: 14.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 676 lr: 6.40000000000001e-06 evaluation reward: 6.54 episode: 4030 score: 9.0 memory length: 1000000 0.009998020008555413 steps: 403 lr: 6.40000000000001e-06 evaluation reward: 6.61 episode: 4031 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 313 lr: 6.40000000000001e-06 evaluation reward: 6.57

memory length: 1000000 epsilon: episode: 4032 score: 6.0 0.009998020008555413 lr: 6.40000000000001e-06 steps: 330 evaluation reward: 6.59 episode: 4033 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 298 evaluation reward: 6.49 episode: 4034 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 409 lr: 6.40000000000001e-06 evaluation reward: 6.5 episode: 4035 score: 3.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 227 evaluation reward: 6.47 episode: 4036 memory length: 1000000 score: 9.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 424 evaluation reward: 6.52 memory length: 1000000 episode: 4037 score: 6.0 epsilon: 0.009998020008555413 steps: 309 lr: 6.40000000000001e-06 evaluation reward: 6.55 memory length: 1000000 episode: 4038 score: 6.0 epsilon: 0.009998020008555413 steps: 345 lr: 6.40000000000001e-06 evaluation reward: 6.56 episode: 4039 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 245 lr: 6.40000000000001e-06 evaluation reward: 6.57 episode: 4040 memory length: 1000000 score: 2.0 epsilon: steps: 181 lr: 6.40000000000001e-06 0.009998020008555413 evaluation reward: 6.57 episode: 4041 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 210 evaluation reward: 6.58 memory length: 1000000 episode: 4042 score: 2.0 epsilon: 0.009998020008555413 steps: 181 lr: 6.40000000000001e-06 evaluation reward: 6.57 episode: 4043 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 181 evaluation reward: 6.57 score: 2.0 episode: 4044 memory length: 1000000 0.009998020008555413 steps: 181 lr: 6.40000000000001e-06 evaluation reward: 6.55 episode: 4045 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 259 lr: 6.40000000000001e-06 evaluation reward: 6.55 episode: 4046 score: 2.0 memory length: 1000000 0.009998020008555413 lr: 6.40000000000001e-06 steps: 181 evaluation reward: 6.52 episode: 4047 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 181 lr: 6.40000000000001e-06 evaluation reward: 6.51

memory length: 1000000 episode: 4048 score: 3.0 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 245 evaluation reward: 6.5 episode: 4049 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 345 evaluation reward: 6.49 episode: 4050 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 336 lr: 6.40000000000001e-06 evaluation reward: 6.48 episode: 4051 score: 4.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 276 evaluation reward: 6.49 episode: 4052 memory length: 1000000 score: 2.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 197 evaluation reward: 6.39 memory length: 1000000 episode: 4053 score: 2.0 epsilon: 0.009998020008555413 steps: 198 lr: 6.40000000000001e-06 evaluation reward: 6.35 episode: 4054 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 210 lr: 6.40000000000001e-06 evaluation reward: 6.36 episode: 4055 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 371 lr: 6.40000000000001e-06 evaluation reward: 6.39 episode: 4056 score: 4.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 261 evaluation reward: 6.38 episode: 4057 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 241 evaluation reward: 6.35 memory length: 1000000 episode: 4058 score: 8.0 epsilon: 0.009998020008555413 steps: 443 lr: 6.40000000000001e-06 evaluation reward: 6.41 episode: 4059 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 232 evaluation reward: 6.35 episode: 4060 score: 5.0 memory length: 1000000 0.009998020008555413 steps: 285 lr: 6.40000000000001e-06 evaluation reward: 6.38 episode: 4061 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 359 lr: 6.40000000000001e-06 evaluation reward: 6.42 episode: 4062 memory length: 1000000 score: 7.0 0.009998020008555413 lr: 6.40000000000001e-06 steps: 355 evaluation reward: 6.47 episode: 4063 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 405 lr: 6.40000000000001e-06 evaluation reward: 6.46

memory length: 1000000 episode: 4064 score: 5.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 298 evaluation reward: 6.45 episode: 4065 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 334 evaluation reward: 6.45 episode: 4066 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 345 lr: 6.40000000000001e-06 evaluation reward: 6.38 score: 10.0 episode: 4067 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 328 evaluation reward: 6.38 episode: 4068 memory length: 1000000 score: 2.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 197 evaluation reward: 6.34 memory length: 1000000 episode: 4069 score: 3.0 epsilon: 0.009998020008555413 steps: 245 lr: 6.40000000000001e-06 evaluation reward: 6.31 memory length: 1000000 episode: 4070 score: 6.0 epsilon: 0.009998020008555413 steps: 318 lr: 6.40000000000001e-06 evaluation reward: 6.28 episode: 4071 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 389 lr: 6.40000000000001e-06 evaluation reward: 6.28 episode: 4072 memory length: 1000000 score: 2.0 epsilon: steps: 181 lr: 6.40000000000001e-06 0.009998020008555413 evaluation reward: 6.23 episode: 4073 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 199 evaluation reward: 6.18 memory length: 1000000 episode: 4074 score: 4.0 epsilon: 0.009998020008555413 steps: 258 lr: 6.40000000000001e-06 evaluation reward: 6.19 episode: 4075 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 291 evaluation reward: 6.12 episode: 4076 score: 6.0 memory length: 1000000 0.009998020008555413 steps: 336 lr: 6.40000000000001e-06 evaluation reward: 6.09 episode: 4077 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 291 lr: 6.40000000000001e-06 evaluation reward: 6.08 episode: 4078 score: 7.0 memory length: 1000000 0.009998020008555413 lr: 6.40000000000001e-06 steps: 359 evaluation reward: 6.07 episode: 4079 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 359 lr: 6.40000000000001e-06 evaluation reward: 6.06

memory length: 1000000 epsilon: episode: 4080 score: 3.0 0.009998020008555413 lr: 6.40000000000001e-06 steps: 228 evaluation reward: 6.02 episode: 4081 score: 5.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 298 evaluation reward: 6.0 episode: 4082 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 355 lr: 6.40000000000001e-06 evaluation reward: 6.0 episode: 4083 score: 3.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 249 evaluation reward: 5.92 episode: 4084 memory length: 1000000 score: 9.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 424 evaluation reward: 5.95 memory length: 1000000 episode: 4085 score: 6.0 epsilon: 0.009998020008555413 steps: 343 lr: 6.40000000000001e-06 evaluation reward: 5.92 memory length: 1000000 episode: 4086 score: 6.0 epsilon: 0.009998020008555413 steps: 371 lr: 6.40000000000001e-06 evaluation reward: 5.92 episode: 4087 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 329 lr: 6.40000000000001e-06 evaluation reward: 5.93 episode: 4088 score: 5.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 298 evaluation reward: 5.91 episode: 4089 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 424 evaluation reward: 5.97 memory length: 1000000 episode: 4094 score: 9.0 epsilon: 0.009998020008555413 steps: 391 lr: 6.40000000000001e-06 evaluation reward: 5.92 episode: 4095 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 436 evaluation reward: 5.92 episode: 4096 score: 9.0 memory length: 1000000 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 5.95 episode: 4097 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 6.0 episode: 4098 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 424 evaluation reward: 6.03 episode: 4099 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 259 lr: 6.40000000000001e-06 evaluation reward: 6.03

memory length: 1000000 epsilon: episode: 4100 score: 9.0 0.009998020008555413 lr: 6.40000000000001e-06 steps: 424 evaluation reward: 6.06 episode: 4101 score: 8.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 277 evaluation reward: 6.08 episode: 4102 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 258 lr: 6.40000000000001e-06 evaluation reward: 6.03 episode: 4103 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 357 evaluation reward: 6.03 episode: 4104 memory length: 1000000 score: 5.0 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 272 evaluation reward: 6.02 memory length: 1000000 episode: 4105 score: 3.0 epsilon: 0.009998020008555413 steps: 229 lr: 6.40000000000001e-06 evaluation reward: 5.95 episode: 4106 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 306 lr: 6.40000000000001e-06 evaluation reward: 5.96 episode: 4107 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 275 lr: 6.40000000000001e-06 evaluation reward: 5.99 episode: 4108 score: 5.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 290 evaluation reward: 5.98 episode: 4109 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 473 evaluation reward: 6.0 memory length: 1000000 episode: 4110 score: 10.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 436 evaluation reward: 6.02 episode: 4111 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 424 evaluation reward: 6.03 episode: 4112 score: 10.0 memory length: 1000000 0.009998020008555413 steps: 436 lr: 6.40000000000001e-06 evaluation reward: 6.07 episode: 4113 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 490 lr: 6.40000000000001e-06 evaluation reward: 6.04 episode: 4114 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 280 evaluation reward: 6.0 episode: 4115 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 359 lr: 6.40000000000001e-06 evaluation reward: 5.98

memory length: 1000000 episode: 4116 score: 7.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 359 evaluation reward: 5.96 episode: 4117 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 280 lr: 6.40000000000001e-06 evaluation reward: 5.93 episode: 4118 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 342 lr: 6.40000000000001e-06 evaluation reward: 5.92 score: 11.0 episode: 4119 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 543 evaluation reward: 5.97 episode: 4120 memory length: 1000000 score: 6.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 373 evaluation reward: 5.94 memory length: 1000000 episode: 4121 score: 6.0 epsilon: 0.009998020008555413 steps: 345 lr: 6.40000000000001e-06 evaluation reward: 5.9 episode: 4122 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 383 lr: 6.40000000000001e-06 evaluation reward: 5.92 episode: 4123 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 298 lr: 6.40000000000001e-06 evaluation reward: 5.88 episode: 4124 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 336 evaluation reward: 5.9 episode: 4125 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 298 evaluation reward: 5.86 memory length: 1000000 episode: 4126 score: 4.0 epsilon: 0.009998020008555413 steps: 256 lr: 6.40000000000001e-06 evaluation reward: 5.84 episode: 4127 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 298 evaluation reward: 5.79 score: 5.0 episode: 4128 memory length: 1000000 epsilon: 0.009998020008555413 steps: 298 lr: 6.40000000000001e-06 evaluation reward: 5.81 episode: 4129 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 295 lr: 6.40000000000001e-06 evaluation reward: 5.71 episode: 4130 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 298 evaluation reward: 5.67 episode: 4131 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 345 lr: 6.40000000000001e-06 evaluation reward: 5.67

epsilon: episode: 4132 score: 7.0 memory length: 1000000 0.009998020008555413 steps: 380 lr: 6.40000000000001e-06 evaluation reward: 5.68 episode: 4133 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 467 lr: 6.40000000000001e-06 evaluation reward: 5.73 episode: 4134 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 382 lr: 6.40000000000001e-06 evaluation reward: 5.74 episode: 4135 score: 5.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 298 evaluation reward: 5.76 episode: 4136 memory length: 1000000 score: 5.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 298 evaluation reward: 5.72 memory length: 1000000 episode: 4137 score: 7.0 epsilon: 0.009998020008555413 steps: 397 lr: 6.40000000000001e-06 evaluation reward: 5.73 episode: 4138 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 410 lr: 6.40000000000001e-06 evaluation reward: 5.75 episode: 4139 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 303 lr: 6.40000000000001e-06 evaluation reward: 5.78 episode: 4140 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 345 lr: 6.40000000000001e-06 evaluation reward: 5.82 episode: 4141 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 345 evaluation reward: 5.85 memory length: 1000000 episode: 4142 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 6.40000000000001e-06 evaluation reward: 5.86 episode: 4143 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 345 evaluation reward: 5.9 episode: 4144 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 356 lr: 6.40000000000001e-06 evaluation reward: 5.95 episode: 4145 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 254 lr: 6.40000000000001e-06 evaluation reward: 5.95 episode: 4146 score: 5.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 321 evaluation reward: 5.98 episode: 4147 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 249 lr: 6.40000000000001e-06 evaluation reward: 5.99

epsilon: episode: 4148 score: 7.0 memory length: 1000000 0.009998020008555413 lr: 6.40000000000001e-06 steps: 359 evaluation reward: 6.03 episode: 4149 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 376 lr: 6.40000000000001e-06 evaluation reward: 6.04 episode: 4150 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 403 lr: 6.40000000000001e-06 evaluation reward: 6.06 episode: 4151 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 348 evaluation reward: 6.08 episode: 4152 memory length: 1000000 score: 6.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 329 evaluation reward: 6.12 memory length: 1000000 episode: 4153 score: 6.0 epsilon: 0.009998020008555413 steps: 327 lr: 6.40000000000001e-06 evaluation reward: 6.16 episode: 4154 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 298 lr: 6.40000000000001e-06 evaluation reward: 6.18 episode: 4155 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 309 lr: 6.40000000000001e-06 evaluation reward: 6.17 episode: 4156 score: 8.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 412 evaluation reward: 6.21 episode: 4157 score: 11.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 513 evaluation reward: 6.28 memory length: 1000000 episode: 4158 score: 2.0 epsilon: 0.009998020008555413 steps: 180 lr: 6.40000000000001e-06 evaluation reward: 6.22 episode: 4159 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 357 evaluation reward: 6.25 episode: 4160 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 413 lr: 6.40000000000001e-06 evaluation reward: 6.28 episode: 4161 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 358 lr: 6.40000000000001e-06 evaluation reward: 6.28 episode: 4162 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 340 evaluation reward: 6.28 episode: 4163 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 329 lr: 6.40000000000001e-06 evaluation reward: 6.26

epsilon: episode: 4164 score: 4.0 memory length: 1000000 0.009998020008555413 steps: 278 lr: 6.40000000000001e-06 evaluation reward: 6.25 episode: 4165 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 345 lr: 6.40000000000001e-06 evaluation reward: 6.24 episode: 4166 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 280 lr: 6.40000000000001e-06 evaluation reward: 6.23 episode: 4167 score: 9.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 416 evaluation reward: 6.22 episode: 4168 memory length: 1000000 score: 6.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 345 evaluation reward: 6.26 memory length: 1000000 episode: 4169 score: 7.0 epsilon: 0.009998020008555413 steps: 397 lr: 6.40000000000001e-06 evaluation reward: 6.3 episode: 4170 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 359 lr: 6.40000000000001e-06 evaluation reward: 6.31 episode: 4171 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 359 lr: 6.40000000000001e-06 evaluation reward: 6.3 episode: 4172 score: 10.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 479 evaluation reward: 6.38 episode: 4173 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 280 evaluation reward: 6.41 memory length: 1000000 episode: 4174 score: 6.0 epsilon: 0.009998020008555413 steps: 323 lr: 6.40000000000001e-06 evaluation reward: 6.43 episode: 4175 score: 16.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 524 evaluation reward: 6.54 episode: 4176 score: 8.0 memory length: 1000000 0.009998020008555413 steps: 270 lr: 6.40000000000001e-06 evaluation reward: 6.56 episode: 4177 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 424 evaluation reward: 6.6 episode: 4178 score: 4.0 memory length: 1000000 lr: 6.40000000000001e-06 0.009998020008555413 steps: 294 evaluation reward: 6.57 episode: 4179 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 342 lr: 6.40000000000001e-06 evaluation reward: 6.56

epsilon: episode: 4180 score: 6.0 memory length: 1000000 0.009998020008555413 steps: 349 lr: 6.40000000000001e-06 evaluation reward: 6.59 episode: 4181 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 344 lr: 6.40000000000001e-06 evaluation reward: 6.61 episode: 4182 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 346 lr: 6.40000000000001e-06 evaluation reward: 6.6 episode: 4183 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 343 evaluation reward: 6.63 episode: 4184 memory length: 1000000 score: 6.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 305 evaluation reward: 6.6 memory length: 1000000 episode: 4185 score: 7.0 epsilon: 0.009998020008555413 steps: 371 lr: 6.40000000000001e-06 evaluation reward: 6.61 episode: 4186 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 329 lr: 6.40000000000001e-06 evaluation reward: 6.61 episode: 4187 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 321 lr: 6.40000000000001e-06 evaluation reward: 6.6 episode: 4188 score: 5.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 280 evaluation reward: 6.6 episode: 4189 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 399 evaluation reward: 6.59 memory length: 1000000 episode: 4190 score: 8.0 epsilon: 0.009998020008555413 steps: 385 lr: 6.40000000000001e-06 evaluation reward: 6.64 episode: 4191 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 280 evaluation reward: 6.64 episode: 4192 score: 7.0 memory length: 1000000 0.009998020008555413 steps: 379 lr: 6.40000000000001e-06 evaluation reward: 6.62 episode: 4193 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 424 evaluation reward: 6.63 episode: 4194 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 399 evaluation reward: 6.62 episode: 4195 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 359 lr: 6.40000000000001e-06 evaluation reward: 6.59

episode: 4196 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 436 evaluation reward: 6.6 episode: 4197 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 329 lr: 6.40000000000001e-06 evaluation reward: 6.57 episode: 4198 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 397 lr: 6.40000000000001e-06 evaluation reward: 6.55 episode: 4199 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 313 evaluation reward: 6.57 episode: 4200 memory length: 1000000 score: 6.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 329 evaluation reward: 6.54 memory length: 1000000 episode: 4201 score: 11.0 epsilon: 0.009998020008555413 steps: 511 lr: 6.40000000000001e-06 evaluation reward: 6.57 episode: 4202 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 345 lr: 6.40000000000001e-06 evaluation reward: 6.59 episode: 4203 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 444 lr: 6.40000000000001e-06 evaluation reward: 6.62 episode: 4204 score: 9.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 424 evaluation reward: 6.66 episode: 4205 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 435 evaluation reward: 6.72 memory length: 1000000 episode: 4206 score: 5.0 epsilon: 0.009998020008555413 steps: 280 lr: 6.40000000000001e-06 evaluation reward: 6.71 episode: 4207 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 313 evaluation reward: 6.72 episode: 4208 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 6.76 episode: 4209 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 359 lr: 6.40000000000001e-06 evaluation reward: 6.73 episode: 4210 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 280 evaluation reward: 6.68 episode: 4211 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 387 lr: 6.40000000000001e-06 evaluation reward: 6.67

epsilon: episode: 4212 score: 6.0 memory length: 1000000 0.009998020008555413 lr: 6.40000000000001e-06 steps: 313 evaluation reward: 6.63 episode: 4213 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 280 lr: 6.40000000000001e-06 evaluation reward: 6.59 episode: 4214 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 349 lr: 6.40000000000001e-06 evaluation reward: 6.6 episode: 4215 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 313 evaluation reward: 6.6 episode: 4216 memory length: 1000000 score: 9.0 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 424 evaluation reward: 6.62 memory length: 1000000 episode: 4217 score: 9.0 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 6.66 episode: 4218 score: 12.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 492 lr: 6.40000000000001e-06 evaluation reward: 6.72 episode: 4219 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 436 lr: 6.40000000000001e-06 evaluation reward: 6.71 episode: 4220 score: 5.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 280 evaluation reward: 6.7 episode: 4221 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 345 evaluation reward: 6.71 memory length: 1000000 episode: 4222 score: 5.0 epsilon: 0.009998020008555413 steps: 280 lr: 6.40000000000001e-06 evaluation reward: 6.68 episode: 4223 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 380 evaluation reward: 6.7 episode: 4224 score: 11.0 memory length: 1000000 0.009998020008555413 steps: 474 lr: 6.40000000000001e-06 evaluation reward: 6.75 episode: 4225 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 407 lr: 6.40000000000001e-06 evaluation reward: 6.78 episode: 4226 score: 7.0 memory length: 1000000 0.009998020008555413 lr: 6.40000000000001e-06 steps: 359 evaluation reward: 6.81 episode: 4227 score: 7.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 359 evaluation reward: 6.83

epsilon: episode: 4228 score: 6.0 memory length: 1000000 0.009998020008555413 lr: 6.40000000000001e-06 steps: 309 evaluation reward: 6.84 episode: 4229 score: 8.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 422 evaluation reward: 6.88 episode: 4230 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 471 lr: 6.40000000000001e-06 evaluation reward: 6.93 score: 10.0 episode: 4231 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 473 evaluation reward: 6.97 episode: 4232 memory length: 1000000 score: 10.0 epsilon: steps: 473 lr: 6.40000000000001e-06 0.009998020008555413 evaluation reward: 7.0 memory length: 1000000 episode: 4233 score: 4.0 epsilon: 0.009998020008555413 steps: 256 lr: 6.40000000000001e-06 evaluation reward: 6.94 memory length: 1000000 episode: 4234 score: 10.0 epsilon: 0.009998020008555413 steps: 436 lr: 6.40000000000001e-06 evaluation reward: 6.96 episode: 4235 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 7.0 episode: 4236 score: 8.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 395 evaluation reward: 7.03 episode: 4237 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 181 evaluation reward: 6.98 memory length: 1000000 episode: 4238 score: 6.0 epsilon: 0.009998020008555413 steps: 329 lr: 6.40000000000001e-06 evaluation reward: 6.96 episode: 4239 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 350 evaluation reward: 6.97 episode: 4240 score: 8.0 memory length: 1000000 0.009998020008555413 steps: 360 lr: 6.40000000000001e-06 evaluation reward: 6.99 episode: 4241 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 473 lr: 6.40000000000001e-06 evaluation reward: 7.03 episode: 4242 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 473 lr: 6.40000000000001e-06 evaluation reward: 7.1 episode: 4243 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 460 lr: 6.40000000000001e-06 evaluation reward: 7.14

memory length: 1000000 episode: 4244 score: 9.0 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 424 evaluation reward: 7.16 episode: 4245 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 371 evaluation reward: 7.19 episode: 4246 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 395 lr: 6.40000000000001e-06 evaluation reward: 7.22 episode: 4247 score: 9.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 424 evaluation reward: 7.28 episode: 4248 memory length: 1000000 score: 9.0 epsilon: 0.009998020008555413 steps: 390 lr: 6.40000000000001e-06 evaluation reward: 7.3 memory length: 1000000 episode: 4249 score: 5.0 epsilon: 0.009998020008555413 steps: 280 lr: 6.40000000000001e-06 evaluation reward: 7.28 memory length: 1000000 episode: 4250 score: 8.0 epsilon: 0.009998020008555413 steps: 425 lr: 6.40000000000001e-06 evaluation reward: 7.28 episode: 4251 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 345 lr: 6.40000000000001e-06 evaluation reward: 7.28 episode: 4252 score: 9.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 499 evaluation reward: 7.31 episode: 4253 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 345 evaluation reward: 7.31 memory length: 1000000 episode: 4254 score: 3.0 epsilon: 0.009998020008555413 steps: 210 lr: 6.40000000000001e-06 evaluation reward: 7.29 episode: 4255 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 332 evaluation reward: 7.29 episode: 4256 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 393 lr: 6.40000000000001e-06 evaluation reward: 7.29 episode: 4257 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 382 lr: 6.40000000000001e-06 evaluation reward: 7.25 episode: 4258 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 436 lr: 6.40000000000001e-06 evaluation reward: 7.33 episode: 4259 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 359 lr: 6.40000000000001e-06 evaluation reward: 7.33

memory length: 1000000 episode: 4260 score: 8.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 398 evaluation reward: 7.33 episode: 4261 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 280 lr: 6.40000000000001e-06 evaluation reward: 7.31 episode: 4262 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 313 lr: 6.40000000000001e-06 evaluation reward: 7.3 episode: 4263 score: 9.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 424 evaluation reward: 7.33 episode: 4264 memory length: 1000000 score: 2.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 181 evaluation reward: 7.31 memory length: 1000000 episode: 4265 score: 5.0 epsilon: 0.009998020008555413 steps: 280 lr: 6.40000000000001e-06 evaluation reward: 7.3 episode: 4266 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 7.34 episode: 4267 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 7.34 episode: 4268 score: 8.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 383 evaluation reward: 7.36 episode: 4269 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 345 evaluation reward: 7.36 memory length: 1000000 episode: 4270 score: 9.0 epsilon: 0.009998020008555413 steps: 393 lr: 6.40000000000001e-06 evaluation reward: 7.38 episode: 4271 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 424 evaluation reward: 7.4 episode: 4272 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 436 lr: 6.40000000000001e-06 evaluation reward: 7.4 episode: 4273 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 436 lr: 6.40000000000001e-06 evaluation reward: 7.45 episode: 4274 score: 9.0 memory length: 1000000 0.009998020008555413 steps: 409 lr: 6.40000000000001e-06 evaluation reward: 7.48 episode: 4275 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 378 lr: 6.40000000000001e-06 evaluation reward: 7.39

memory length: 1000000 episode: 4276 score: 7.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 373 evaluation reward: 7.38 episode: 4277 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 344 lr: 6.40000000000001e-06 evaluation reward: 7.36 episode: 4278 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 280 lr: 6.40000000000001e-06 evaluation reward: 7.37 episode: 4279 score: 5.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 280 evaluation reward: 7.36 episode: 4280 memory length: 1000000 score: 9.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 437 evaluation reward: 7.39 memory length: 1000000 episode: 4281 score: 9.0 epsilon: 0.009998020008555413 steps: 460 lr: 6.40000000000001e-06 evaluation reward: 7.41 episode: 4282 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 357 lr: 6.40000000000001e-06 evaluation reward: 7.41 episode: 4283 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 459 lr: 6.40000000000001e-06 evaluation reward: 7.44 episode: 4284 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 355 evaluation reward: 7.44 episode: 4285 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 425 evaluation reward: 7.45 memory length: 1000000 episode: 4286 score: 7.0 epsilon: 0.009998020008555413 steps: 344 lr: 6.40000000000001e-06 evaluation reward: 7.46 episode: 4287 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 356 evaluation reward: 7.47 episode: 4288 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 454 lr: 6.40000000000001e-06 evaluation reward: 7.51 episode: 4289 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 343 lr: 6.40000000000001e-06 evaluation reward: 7.49 episode: 4290 score: 5.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 310 evaluation reward: 7.46 episode: 4291 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 345 lr: 6.40000000000001e-06 evaluation reward: 7.47

memory length: 1000000 episode: 4292 score: 10.0 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 421 evaluation reward: 7.5 episode: 4293 score: 8.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 396 evaluation reward: 7.49 episode: 4294 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 321 lr: 6.40000000000001e-06 evaluation reward: 7.47 episode: 4295 score: 8.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 382 evaluation reward: 7.48 episode: 4296 memory length: 1000000 score: 6.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 313 evaluation reward: 7.44 memory length: 1000000 episode: 4297 score: 9.0 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 7.47 episode: 4298 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 436 lr: 6.40000000000001e-06 evaluation reward: 7.5 episode: 4299 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 436 lr: 6.40000000000001e-06 evaluation reward: 7.54 episode: 4300 score: 9.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 424 evaluation reward: 7.57 episode: 4301 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 310 evaluation reward: 7.51 memory length: 1000000 episode: 4302 score: 10.0 epsilon: 0.009998020008555413 steps: 444 lr: 6.40000000000001e-06 evaluation reward: 7.55 episode: 4303 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 354 evaluation reward: 7.54 score: 8.0 episode: 4304 memory length: 1000000 epsilon: 0.009998020008555413 steps: 360 lr: 6.40000000000001e-06 evaluation reward: 7.53 episode: 4305 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 356 lr: 6.40000000000001e-06 evaluation reward: 7.51 episode: 4306 score: 6.0 memory length: 1000000 0.009998020008555413 lr: 6.40000000000001e-06 steps: 313 evaluation reward: 7.52 episode: 4307 score: 13.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 448 lr: 6.40000000000001e-06 evaluation reward: 7.59

episode: 4308 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 436 evaluation reward: 7.6 episode: 4309 score: 15.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 501 lr: 6.40000000000001e-06 evaluation reward: 7.68 episode: 4310 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 332 lr: 6.40000000000001e-06 evaluation reward: 7.7 episode: 4311 score: 9.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 452 evaluation reward: 7.71 episode: 4312 memory length: 1000000 score: 9.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 424 evaluation reward: 7.74 memory length: 1000000 episode: 4313 score: 8.0 epsilon: 0.009998020008555413 steps: 405 lr: 6.40000000000001e-06 evaluation reward: 7.77 memory length: 1000000 episode: 4314 score: 4.0 epsilon: 0.009998020008555413 steps: 280 lr: 6.40000000000001e-06 evaluation reward: 7.75 episode: 4315 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 359 lr: 6.40000000000001e-06 evaluation reward: 7.76 episode: 4316 score: 7.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 359 evaluation reward: 7.74 episode: 4317 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 356 evaluation reward: 7.72 memory length: 1000000 episode: 4318 score: 9.0 epsilon: 0.009998020008555413 steps: 393 lr: 6.40000000000001e-06 evaluation reward: 7.69 episode: 4319 score: 11.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 542 evaluation reward: 7.7 episode: 4320 score: 12.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 523 lr: 6.40000000000001e-06 evaluation reward: 7.77 episode: 4321 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 436 lr: 6.40000000000001e-06 evaluation reward: 7.8 episode: 4322 score: 11.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 474 lr: 6.40000000000001e-06 evaluation reward: 7.86 episode: 4323 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 371 lr: 6.40000000000001e-06 evaluation reward: 7.86

episode: 4324 score: 11.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 542 evaluation reward: 7.86 episode: 4325 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 225 evaluation reward: 7.81 episode: 4326 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 309 lr: 6.40000000000001e-06 evaluation reward: 7.8 score: 5.0 episode: 4327 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 280 evaluation reward: 7.78 episode: 4328 memory length: 1000000 score: 6.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 344 evaluation reward: 7.78 memory length: 1000000 episode: 4329 score: 7.0 epsilon: 0.009998020008555413 steps: 359 lr: 6.40000000000001e-06 evaluation reward: 7.77 episode: 4330 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 360 lr: 6.40000000000001e-06 evaluation reward: 7.74 episode: 4331 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 359 lr: 6.40000000000001e-06 evaluation reward: 7.71 episode: 4332 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 309 evaluation reward: 7.67 episode: 4333 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 309 evaluation reward: 7.69 memory length: 1000000 episode: 4334 score: 7.0 epsilon: 0.009998020008555413 steps: 359 lr: 6.40000000000001e-06 evaluation reward: 7.66 episode: 4335 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 296 evaluation reward: 7.62 score: 7.0 episode: 4336 memory length: 1000000 epsilon: 0.009998020008555413 steps: 356 lr: 6.40000000000001e-06 evaluation reward: 7.61 episode: 4337 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 477 evaluation reward: 7.68 episode: 4338 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 345 evaluation reward: 7.68 episode: 4339 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 345 lr: 6.40000000000001e-06 evaluation reward: 7.67

memory length: 1000000 episode: 4340 score: 5.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 298 evaluation reward: 7.64 episode: 4341 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 309 evaluation reward: 7.6 episode: 4342 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 359 lr: 6.40000000000001e-06 evaluation reward: 7.57 episode: 4343 score: 7.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 357 evaluation reward: 7.54 episode: 4344 memory length: 1000000 score: 7.0 epsilon: steps: 359 lr: 6.40000000000001e-06 0.009998020008555413 evaluation reward: 7.52 memory length: 1000000 episode: 4345 score: 8.0 epsilon: 0.009998020008555413 steps: 409 lr: 6.40000000000001e-06 evaluation reward: 7.53 memory length: 1000000 episode: 4346 score: 6.0 epsilon: 0.009998020008555413 steps: 343 lr: 6.40000000000001e-06 evaluation reward: 7.51 episode: 4347 score: 11.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 399 lr: 6.40000000000001e-06 evaluation reward: 7.53 episode: 4348 score: 7.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 359 evaluation reward: 7.51 episode: 4349 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 256 evaluation reward: 7.5 memory length: 1000000 episode: 4350 score: 7.0 epsilon: 0.009998020008555413 steps: 352 lr: 6.40000000000001e-06 evaluation reward: 7.49 episode: 4351 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 298 evaluation reward: 7.48 score: 6.0 episode: 4352 memory length: 1000000 epsilon: 0.009998020008555413 steps: 309 lr: 6.40000000000001e-06 evaluation reward: 7.45 episode: 4353 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 298 lr: 6.40000000000001e-06 evaluation reward: 7.44 episode: 4354 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 359 evaluation reward: 7.48 episode: 4355 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 304 lr: 6.40000000000001e-06 evaluation reward: 7.47

memory length: 1000000 episode: 4356 score: 6.0 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 303 evaluation reward: 7.45 episode: 4357 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 312 evaluation reward: 7.44 episode: 4358 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 376 lr: 6.40000000000001e-06 evaluation reward: 7.41 episode: 4359 score: 5.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 298 evaluation reward: 7.4 episode: 4360 memory length: 1000000 score: 7.0 epsilon: steps: 359 lr: 6.40000000000001e-06 0.009998020008555413 evaluation reward: 7.39 memory length: 1000000 episode: 4361 score: 7.0 epsilon: 0.009998020008555413 steps: 359 lr: 6.40000000000001e-06 evaluation reward: 7.41 memory length: 1000000 episode: 4362 score: 4.0 epsilon: 0.009998020008555413 steps: 242 lr: 6.40000000000001e-06 evaluation reward: 7.39 episode: 4363 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 309 lr: 6.40000000000001e-06 evaluation reward: 7.36 episode: 4364 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 343 evaluation reward: 7.4 episode: 4365 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 298 evaluation reward: 7.4 memory length: 1000000 episode: 4366 score: 7.0 epsilon: 0.009998020008555413 steps: 359 lr: 6.40000000000001e-06 evaluation reward: 7.38 episode: 4367 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 371 evaluation reward: 7.36 episode: 4368 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 352 lr: 6.40000000000001e-06 evaluation reward: 7.35 episode: 4369 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 397 lr: 6.40000000000001e-06 evaluation reward: 7.35 episode: 4370 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 350 evaluation reward: 7.33 episode: 4371 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 357 lr: 6.40000000000001e-06 evaluation reward: 7.31

memory length: 1000000 episode: 4372 score: 6.0 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 305 evaluation reward: 7.27 episode: 4373 score: 9.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 424 evaluation reward: 7.26 episode: 4374 score: 13.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 544 lr: 6.40000000000001e-06 evaluation reward: 7.3 episode: 4375 score: 9.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 424 evaluation reward: 7.32 episode: 4376 memory length: 1000000 score: 9.0 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 424 evaluation reward: 7.34 memory length: 1000000 episode: 4377 score: 10.0 epsilon: 0.009998020008555413 steps: 436 lr: 6.40000000000001e-06 evaluation reward: 7.37 episode: 4378 memory length: 1000000 score: 7.0 epsilon: 0.009998020008555413 steps: 346 lr: 6.40000000000001e-06 evaluation reward: 7.39 episode: 4379 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 436 lr: 6.40000000000001e-06 evaluation reward: 7.44 episode: 4380 score: 8.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 405 evaluation reward: 7.43 episode: 4381 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 371 evaluation reward: 7.41 memory length: 1000000 episode: 4382 score: 7.0 epsilon: 0.009998020008555413 steps: 359 lr: 6.40000000000001e-06 evaluation reward: 7.42 episode: 4383 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 427 evaluation reward: 7.4 episode: 4384 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 359 lr: 6.40000000000001e-06 evaluation reward: 7.41 episode: 4385 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 426 lr: 6.40000000000001e-06 evaluation reward: 7.41 episode: 4386 memory length: 1000000 score: 7.0 0.009998020008555413 lr: 6.40000000000001e-06 steps: 371 evaluation reward: 7.41 episode: 4387 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 409 lr: 6.40000000000001e-06 evaluation reward: 7.41

memory length: 1000000 episode: 4388 score: 6.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 343 evaluation reward: 7.38 episode: 4389 score: 3.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 246 evaluation reward: 7.35 episode: 4390 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 355 lr: 6.40000000000001e-06 evaluation reward: 7.36 episode: 4391 score: 5.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 280 evaluation reward: 7.35 episode: 4392 memory length: 1000000 score: 8.0 epsilon: steps: 354 lr: 6.40000000000001e-06 0.009998020008555413 evaluation reward: 7.33 memory length: 1000000 episode: 4393 score: 6.0 epsilon: 0.009998020008555413 steps: 328 lr: 6.40000000000001e-06 evaluation reward: 7.31 memory length: 1000000 episode: 4394 score: 13.0 epsilon: 0.009998020008555413 steps: 544 lr: 6.40000000000001e-06 evaluation reward: 7.38 episode: 4395 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 7.39 episode: 4396 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 329 evaluation reward: 7.39 episode: 4397 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 424 evaluation reward: 7.39 memory length: 1000000 episode: 4398 score: 12.0 epsilon: 0.009998020008555413 steps: 503 lr: 6.40000000000001e-06 evaluation reward: 7.41 episode: 4399 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 225 evaluation reward: 7.34 episode: 4400 score: 7.0 memory length: 1000000 0.009998020008555413 steps: 371 lr: 6.40000000000001e-06 evaluation reward: 7.32 episode: 4401 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 495 lr: 6.40000000000001e-06 evaluation reward: 7.37 episode: 4402 score: 7.0 memory length: 1000000 0.009998020008555413 lr: 6.40000000000001e-06 steps: 371 evaluation reward: 7.34 episode: 4403 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 432 lr: 6.40000000000001e-06 evaluation reward: 7.35

memory length: 1000000 episode: 4404 score: 11.0 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 477 evaluation reward: 7.38 episode: 4405 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 359 evaluation reward: 7.38 episode: 4406 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 359 lr: 6.40000000000001e-06 evaluation reward: 7.39 score: 11.0 episode: 4407 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 474 evaluation reward: 7.37 episode: 4408 memory length: 1000000 score: 7.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 420 evaluation reward: 7.34 memory length: 1000000 episode: 4409 score: 10.0 epsilon: 0.009998020008555413 steps: 467 lr: 6.40000000000001e-06 evaluation reward: 7.29 episode: 4410 memory length: 1000000 score: 5.0 epsilon: 0.009998020008555413 steps: 280 lr: 6.40000000000001e-06 evaluation reward: 7.27 episode: 4411 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 290 lr: 6.40000000000001e-06 evaluation reward: 7.23 episode: 4412 score: 4.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 243 evaluation reward: 7.18 episode: 4413 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 391 evaluation reward: 7.16 memory length: 1000000 episode: 4414 score: 8.0 epsilon: 0.009998020008555413 steps: 421 lr: 6.40000000000001e-06 evaluation reward: 7.2 episode: 4415 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 280 evaluation reward: 7.18 episode: 4416 score: 9.0 memory length: 1000000 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 7.2 episode: 4417 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 473 lr: 6.40000000000001e-06 evaluation reward: 7.23 episode: 4418 score: 5.0 memory length: 1000000 0.009998020008555413 lr: 6.40000000000001e-06 steps: 280 evaluation reward: 7.19 episode: 4419 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 357 lr: 6.40000000000001e-06 evaluation reward: 7.15

memory length: 1000000 epsilon: episode: 4420 score: 3.0 0.009998020008555413 lr: 6.40000000000001e-06 steps: 225 evaluation reward: 7.06 episode: 4421 score: 3.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 6.99 episode: 4422 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 6.40000000000001e-06 evaluation reward: 6.91 episode: 4423 score: 3.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 227 evaluation reward: 6.87 episode: 4424 memory length: 1000000 score: 3.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 6.79 memory length: 1000000 episode: 4425 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 6.40000000000001e-06 evaluation reward: 6.79 memory length: 1000000 episode: 4426 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 6.40000000000001e-06 evaluation reward: 6.76 episode: 4427 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 6.40000000000001e-06 evaluation reward: 6.74 episode: 4428 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 325 evaluation reward: 6.74 episode: 4429 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 298 evaluation reward: 6.72 memory length: 1000000 episode: 4430 score: 9.0 epsilon: 0.009998020008555413 steps: 390 lr: 6.40000000000001e-06 evaluation reward: 6.74 episode: 4431 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 345 evaluation reward: 6.73 episode: 4432 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 457 lr: 6.40000000000001e-06 evaluation reward: 6.76 episode: 4433 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 352 lr: 6.40000000000001e-06 evaluation reward: 6.77 episode: 4434 score: 13.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 544 lr: 6.40000000000001e-06 evaluation reward: 6.83 episode: 4435 score: 11.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 440 lr: 6.40000000000001e-06 evaluation reward: 6.89

memory length: 1000000 epsilon: episode: 4436 score: 7.0 lr: 6.40000000000001e-06 0.009998020008555413 steps: 352 evaluation reward: 6.89 episode: 4437 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 447 lr: 6.40000000000001e-06 evaluation reward: 6.9 episode: 4438 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 350 lr: 6.40000000000001e-06 evaluation reward: 6.91 episode: 4439 score: 3.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 6.88 episode: 4440 memory length: 1000000 score: 4.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 256 evaluation reward: 6.87 memory length: 1000000 episode: 4441 score: 10.0 epsilon: 0.009998020008555413 steps: 444 lr: 6.40000000000001e-06 evaluation reward: 6.91 episode: 4442 memory length: 1000000 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 6.40000000000001e-06 evaluation reward: 6.87 episode: 4443 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 459 lr: 6.40000000000001e-06 evaluation reward: 6.9 episode: 4444 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 303 evaluation reward: 6.89 episode: 4445 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 298 evaluation reward: 6.86 memory length: 1000000 episode: 4446 score: 7.0 epsilon: 0.009998020008555413 steps: 352 lr: 6.40000000000001e-06 evaluation reward: 6.87 episode: 4447 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 350 evaluation reward: 6.83 episode: 4448 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 6.85 episode: 4449 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 6.9 episode: 4450 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 424 evaluation reward: 6.92 episode: 4451 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 230 lr: 6.40000000000001e-06 evaluation reward: 6.9

epsilon: episode: 4452 score: 3.0 memory length: 1000000 0.009998020008555413 steps: 230 lr: 6.40000000000001e-06 evaluation reward: 6.87 episode: 4453 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 344 lr: 6.40000000000001e-06 evaluation reward: 6.89 episode: 4454 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 345 lr: 6.40000000000001e-06 evaluation reward: 6.88 episode: 4455 score: 3.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 6.86 episode: 4456 memory length: 1000000 score: 7.0 epsilon: steps: 352 lr: 6.40000000000001e-06 0.009998020008555413 evaluation reward: 6.87 memory length: 1000000 episode: 4457 score: 9.0 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 6.9 episode: 4458 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 6.92 episode: 4459 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 305 lr: 6.40000000000001e-06 evaluation reward: 6.93 episode: 4460 score: 5.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 268 evaluation reward: 6.91 episode: 4461 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 449 evaluation reward: 6.93 memory length: 1000000 episode: 4462 score: 9.0 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 6.98 episode: 4463 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 313 evaluation reward: 6.98 score: 9.0 episode: 4464 memory length: 1000000 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 7.01 episode: 4465 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 256 lr: 6.40000000000001e-06 evaluation reward: 7.0 episode: 4466 score: 4.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 256 evaluation reward: 6.97 episode: 4467 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 6.40000000000001e-06 evaluation reward: 6.93

memory length: 1000000 epsilon: episode: 4468 score: 3.0 lr: 6.40000000000001e-06 0.009998020008555413 steps: 230 evaluation reward: 6.89 episode: 4469 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 295 evaluation reward: 6.87 episode: 4470 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 6.40000000000001e-06 evaluation reward: 6.83 episode: 4471 score: 3.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 6.79 episode: 4472 memory length: 1000000 score: 4.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 256 evaluation reward: 6.77 memory length: 1000000 episode: 4473 score: 5.0 epsilon: 0.009998020008555413 steps: 294 lr: 6.40000000000001e-06 evaluation reward: 6.73 episode: 4474 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 230 lr: 6.40000000000001e-06 evaluation reward: 6.63 episode: 4475 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 276 lr: 6.40000000000001e-06 evaluation reward: 6.58 episode: 4476 score: 12.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 498 evaluation reward: 6.61 episode: 4477 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 225 evaluation reward: 6.54 memory length: 1000000 episode: 4478 score: 9.0 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 6.56 episode: 4479 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 225 evaluation reward: 6.49 score: 4.0 episode: 4480 memory length: 1000000 epsilon: 0.009998020008555413 steps: 258 lr: 6.40000000000001e-06 evaluation reward: 6.45 episode: 4481 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 294 lr: 6.40000000000001e-06 evaluation reward: 6.43 episode: 4482 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 225 evaluation reward: 6.39 episode: 4483 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 262 lr: 6.40000000000001e-06 evaluation reward: 6.36

memory length: 1000000 epsilon: episode: 4484 score: 8.0 0.009998020008555413 lr: 6.40000000000001e-06 steps: 373 evaluation reward: 6.37 episode: 4485 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 307 evaluation reward: 6.34 episode: 4486 score: 16.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 584 lr: 6.40000000000001e-06 evaluation reward: 6.43 score: 11.0 episode: 4487 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 476 evaluation reward: 6.47 episode: 4488 memory length: 1000000 score: 2.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 181 evaluation reward: 6.43 memory length: 1000000 episode: 4489 score: 9.0 epsilon: 0.009998020008555413 steps: 420 lr: 6.40000000000001e-06 evaluation reward: 6.49 memory length: 1000000 episode: 4490 score: 3.0 epsilon: 0.009998020008555413 steps: 227 lr: 6.40000000000001e-06 evaluation reward: 6.46 episode: 4491 score: 11.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 499 lr: 6.40000000000001e-06 evaluation reward: 6.52 episode: 4492 score: 14.0 memory length: 1000000 epsilon: steps: 530 lr: 6.40000000000001e-06 0.009998020008555413 evaluation reward: 6.58 episode: 4493 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 280 evaluation reward: 6.57 memory length: 1000000 episode: 4494 score: 4.0 epsilon: 0.009998020008555413 steps: 238 lr: 6.40000000000001e-06 evaluation reward: 6.48 episode: 4495 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 227 evaluation reward: 6.42 episode: 4496 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 227 lr: 6.40000000000001e-06 evaluation reward: 6.39 episode: 4497 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 6.39 episode: 4498 score: 4.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 281 evaluation reward: 6.31 episode: 4499 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 354 lr: 6.40000000000001e-06 evaluation reward: 6.34

epsilon: episode: 4500 score: 4.0 memory length: 1000000 0.009998020008555413 steps: 245 lr: 6.40000000000001e-06 evaluation reward: 6.31 episode: 4501 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 256 lr: 6.40000000000001e-06 evaluation reward: 6.25 episode: 4502 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 6.40000000000001e-06 evaluation reward: 6.21 episode: 4503 score: 8.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 424 evaluation reward: 6.2 episode: 4504 memory length: 1000000 score: 3.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 227 evaluation reward: 6.12 memory length: 1000000 episode: 4505 score: 3.0 epsilon: 0.009998020008555413 steps: 232 lr: 6.40000000000001e-06 evaluation reward: 6.08 episode: 4506 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 256 lr: 6.40000000000001e-06 evaluation reward: 6.05 episode: 4507 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 227 lr: 6.40000000000001e-06 evaluation reward: 5.97 episode: 4508 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 313 evaluation reward: 5.96 episode: 4509 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 225 evaluation reward: 5.89 memory length: 1000000 episode: 4510 score: 3.0 epsilon: 0.009998020008555413 steps: 232 lr: 6.40000000000001e-06 evaluation reward: 5.87 episode: 4511 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 279 evaluation reward: 5.86 score: 6.0 episode: 4512 memory length: 1000000 epsilon: 0.009998020008555413 steps: 340 lr: 6.40000000000001e-06 evaluation reward: 5.88 episode: 4513 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 308 lr: 6.40000000000001e-06 evaluation reward: 5.87 episode: 4514 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 244 evaluation reward: 5.82 episode: 4515 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 245 lr: 6.40000000000001e-06 evaluation reward: 5.81

memory length: 1000000 epsilon: episode: 4516 score: 3.0 lr: 6.40000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 5.75 episode: 4517 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 276 evaluation reward: 5.69 episode: 4518 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 274 lr: 6.40000000000001e-06 evaluation reward: 5.68 episode: 4519 score: 3.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 227 evaluation reward: 5.64 episode: 4520 memory length: 1000000 score: 18.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 623 evaluation reward: 5.79 memory length: 1000000 episode: 4521 score: 3.0 epsilon: 0.009998020008555413 steps: 230 lr: 6.40000000000001e-06 evaluation reward: 5.79 episode: 4522 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 358 lr: 6.40000000000001e-06 evaluation reward: 5.82 episode: 4523 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 5.88 episode: 4524 score: 3.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 232 evaluation reward: 5.88 episode: 4525 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 246 evaluation reward: 5.89 memory length: 1000000 episode: 4526 score: 6.0 epsilon: 0.009998020008555413 steps: 347 lr: 6.40000000000001e-06 evaluation reward: 5.92 episode: 4527 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 376 evaluation reward: 5.96 episode: 4528 score: 2.0 memory length: 1000000 0.009998020008555413 steps: 181 lr: 6.40000000000001e-06 evaluation reward: 5.92 episode: 4529 score: 17.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 598 lr: 6.40000000000001e-06 evaluation reward: 6.04 episode: 4530 score: 3.0 memory length: 1000000 0.009998020008555413 lr: 6.40000000000001e-06 steps: 232 evaluation reward: 5.98 episode: 4531 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 232 lr: 6.40000000000001e-06 evaluation reward: 5.95

memory length: 1000000 epsilon: episode: 4532 score: 6.0 lr: 6.40000000000001e-06 0.009998020008555413 steps: 343 evaluation reward: 5.92 episode: 4533 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 506 lr: 6.40000000000001e-06 evaluation reward: 5.95 episode: 4534 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 213 lr: 6.40000000000001e-06 evaluation reward: 5.85 episode: 4535 score: 9.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 424 evaluation reward: 5.83 episode: 4536 memory length: 1000000 score: 9.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 424 evaluation reward: 5.85 memory length: 1000000 episode: 4537 score: 9.0 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 5.84 episode: 4538 score: 12.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 520 lr: 6.40000000000001e-06 evaluation reward: 5.89 episode: 4539 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 446 lr: 6.40000000000001e-06 evaluation reward: 5.96 episode: 4540 score: 10.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 473 evaluation reward: 6.02 episode: 4541 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 280 evaluation reward: 5.97 memory length: 1000000 episode: 4542 score: 9.0 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 6.03 episode: 4543 score: 15.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 524 evaluation reward: 6.08 episode: 4544 score: 6.0 memory length: 1000000 0.009998020008555413 steps: 329 lr: 6.40000000000001e-06 evaluation reward: 6.08 episode: 4545 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 473 lr: 6.40000000000001e-06 evaluation reward: 6.13 episode: 4546 score: 9.0 memory length: 1000000 0.009998020008555413 lr: 6.40000000000001e-06 steps: 424 evaluation reward: 6.15 episode: 4547 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 6.17

memory length: 1000000 episode: 4548 score: 12.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 534 evaluation reward: 6.2 episode: 4549 score: 12.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 511 lr: 6.40000000000001e-06 evaluation reward: 6.23 episode: 4550 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 226 lr: 6.40000000000001e-06 evaluation reward: 6.17 score: 7.0 episode: 4551 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 364 evaluation reward: 6.21 episode: 4552 memory length: 1000000 score: 6.0 epsilon: steps: 393 lr: 6.40000000000001e-06 0.009998020008555413 evaluation reward: 6.24 memory length: 1000000 episode: 4553 score: 9.0 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 6.26 episode: 4554 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 376 lr: 6.40000000000001e-06 evaluation reward: 6.27 episode: 4555 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 227 lr: 6.40000000000001e-06 evaluation reward: 6.27 episode: 4556 score: 4.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 238 evaluation reward: 6.24 episode: 4557 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 278 evaluation reward: 6.2 memory length: 1000000 episode: 4558 score: 6.0 epsilon: 0.009998020008555413 steps: 329 lr: 6.40000000000001e-06 evaluation reward: 6.17 episode: 4559 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 424 evaluation reward: 6.2 episode: 4560 score: 11.0 memory length: 1000000 0.009998020008555413 steps: 506 lr: 6.40000000000001e-06 evaluation reward: 6.26 episode: 4561 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 232 lr: 6.40000000000001e-06 evaluation reward: 6.2 episode: 4562 memory length: 1000000 score: 3.0 0.009998020008555413 lr: 6.40000000000001e-06 steps: 225 evaluation reward: 6.14 episode: 4563 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 278 lr: 6.40000000000001e-06 evaluation reward: 6.13

memory length: 1000000 epsilon: episode: 4564 score: 3.0 0.009998020008555413 lr: 6.40000000000001e-06 steps: 226 evaluation reward: 6.07 episode: 4565 score: 7.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 362 evaluation reward: 6.1 episode: 4566 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 449 lr: 6.40000000000001e-06 evaluation reward: 6.16 episode: 4567 score: 3.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 6.16 episode: 4568 memory length: 1000000 score: 3.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 227 evaluation reward: 6.16 memory length: 1000000 episode: 4569 score: 3.0 epsilon: 0.009998020008555413 steps: 227 lr: 6.40000000000001e-06 evaluation reward: 6.14 memory length: 1000000 episode: 4570 score: 9.0 epsilon: 0.009998020008555413 steps: 418 lr: 6.40000000000001e-06 evaluation reward: 6.2 episode: 4571 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 6.26 episode: 4572 score: 9.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 424 evaluation reward: 6.31 episode: 4573 score: 11.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 500 evaluation reward: 6.37 memory length: 1000000 episode: 4574 score: 9.0 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 6.43 episode: 4575 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 227 evaluation reward: 6.42 episode: 4576 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 433 lr: 6.40000000000001e-06 evaluation reward: 6.4 episode: 4577 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 375 lr: 6.40000000000001e-06 evaluation reward: 6.45 episode: 4578 score: 15.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 501 lr: 6.40000000000001e-06 evaluation reward: 6.51 episode: 4579 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 360 lr: 6.40000000000001e-06 evaluation reward: 6.56

episode: 4580 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 433 evaluation reward: 6.62 episode: 4581 score: 14.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 612 lr: 6.40000000000001e-06 evaluation reward: 6.71 episode: 4582 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 280 lr: 6.40000000000001e-06 evaluation reward: 6.73 episode: 4583 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 329 evaluation reward: 6.75 episode: 4584 memory length: 1000000 score: 4.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 275 evaluation reward: 6.71 memory length: 1000000 episode: 4585 score: 7.0 epsilon: 0.009998020008555413 steps: 344 lr: 6.40000000000001e-06 evaluation reward: 6.73 episode: 4586 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 381 lr: 6.40000000000001e-06 evaluation reward: 6.65 episode: 4587 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 298 lr: 6.40000000000001e-06 evaluation reward: 6.59 episode: 4588 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 329 evaluation reward: 6.63 episode: 4589 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 280 evaluation reward: 6.59 memory length: 1000000 episode: 4590 score: 8.0 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 6.64 episode: 4591 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 296 evaluation reward: 6.58 score: 5.0 episode: 4592 memory length: 1000000 epsilon: 0.009998020008555413 steps: 280 lr: 6.40000000000001e-06 evaluation reward: 6.49 episode: 4593 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 327 evaluation reward: 6.5 episode: 4594 score: 8.0 memory length: 1000000 0.009998020008555413 lr: 6.40000000000001e-06 steps: 272 evaluation reward: 6.54 episode: 4595 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 486 lr: 6.40000000000001e-06 evaluation reward: 6.61

episode: 4596 score: 12.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 394 evaluation reward: 6.7 episode: 4597 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 375 lr: 6.40000000000001e-06 evaluation reward: 6.68 episode: 4598 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 332 lr: 6.40000000000001e-06 evaluation reward: 6.7 score: 5.0 episode: 4599 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 280 evaluation reward: 6.69 episode: 4600 memory length: 1000000 score: 9.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 457 evaluation reward: 6.74 memory length: 1000000 episode: 4601 score: 4.0 epsilon: 0.009998020008555413 steps: 256 lr: 6.40000000000001e-06 evaluation reward: 6.74 episode: 4602 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 331 lr: 6.40000000000001e-06 evaluation reward: 6.77 episode: 4603 score: 11.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 499 lr: 6.40000000000001e-06 evaluation reward: 6.8 episode: 4604 score: 9.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 424 evaluation reward: 6.86 episode: 4605 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 332 evaluation reward: 6.89 memory length: 1000000 episode: 4606 score: 10.0 epsilon: 0.009998020008555413 steps: 500 lr: 6.40000000000001e-06 evaluation reward: 6.95 episode: 4607 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 360 evaluation reward: 6.99 episode: 4608 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 429 lr: 6.40000000000001e-06 evaluation reward: 7.02 episode: 4609 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 280 lr: 6.40000000000001e-06 evaluation reward: 7.04 episode: 4610 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 298 evaluation reward: 7.06 episode: 4611 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 348 lr: 6.40000000000001e-06 evaluation reward: 7.08

episode: 4612 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 327 lr: 6.40000000000001e-06 evaluation reward: 7.08 episode: 4613 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 371 lr: 6.40000000000001e-06 evaluation reward: 7.1 episode: 4614 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 327 lr: 6.40000000000001e-06 evaluation reward: 7.13 episode: 4615 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 333 evaluation reward: 7.15 episode: 4616 memory length: 1000000 score: 5.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 298 evaluation reward: 7.17 memory length: 1000000 episode: 4617 score: 5.0 epsilon: 0.009998020008555413 steps: 298 lr: 6.40000000000001e-06 evaluation reward: 7.18 episode: 4618 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 327 lr: 6.40000000000001e-06 evaluation reward: 7.2 episode: 4619 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 405 lr: 6.40000000000001e-06 evaluation reward: 7.25 episode: 4620 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 331 evaluation reward: 7.13 episode: 4621 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 327 evaluation reward: 7.16 memory length: 1000000 episode: 4622 score: 6.0 epsilon: 0.009998020008555413 steps: 314 lr: 6.40000000000001e-06 evaluation reward: 7.16 episode: 4623 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 334 evaluation reward: 7.13 score: 6.0 episode: 4624 memory length: 1000000 0.009998020008555413 steps: 327 lr: 6.40000000000001e-06 evaluation reward: 7.16 episode: 4625 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 426 lr: 6.40000000000001e-06 evaluation reward: 7.2 episode: 4626 score: 8.0 memory length: 1000000 0.009998020008555413 lr: 6.40000000000001e-06 steps: 424 evaluation reward: 7.22 episode: 4627 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 371 lr: 6.40000000000001e-06 evaluation reward: 7.22

memory length: 1000000 episode: 4628 score: 4.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 274 evaluation reward: 7.24 episode: 4629 score: 8.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 367 evaluation reward: 7.15 episode: 4630 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 378 lr: 6.40000000000001e-06 evaluation reward: 7.19 episode: 4631 score: 8.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 424 evaluation reward: 7.24 episode: 4632 memory length: 1000000 score: 7.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 371 evaluation reward: 7.25 memory length: 1000000 episode: 4633 score: 3.0 epsilon: 0.009998020008555413 steps: 230 lr: 6.40000000000001e-06 evaluation reward: 7.18 memory length: 1000000 episode: 4634 score: 7.0 epsilon: 0.009998020008555413 steps: 379 lr: 6.40000000000001e-06 evaluation reward: 7.22 episode: 4635 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 437 lr: 6.40000000000001e-06 evaluation reward: 7.22 episode: 4636 score: 7.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 396 evaluation reward: 7.2 episode: 4637 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 471 evaluation reward: 7.21 memory length: 1000000 episode: 4638 score: 7.0 epsilon: 0.009998020008555413 steps: 396 lr: 6.40000000000001e-06 evaluation reward: 7.16 episode: 4639 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 379 evaluation reward: 7.14 episode: 4640 score: 13.0 memory length: 1000000 0.009998020008555413 steps: 544 lr: 6.40000000000001e-06 evaluation reward: 7.17 episode: 4641 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 476 evaluation reward: 7.21 episode: 4642 score: 7.0 memory length: 1000000 0.009998020008555413 lr: 6.40000000000001e-06 steps: 371 evaluation reward: 7.19 episode: 4643 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 501 lr: 6.40000000000001e-06 evaluation reward: 7.14

memory length: 1000000 episode: 4644 score: 9.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 479 evaluation reward: 7.17 episode: 4645 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 256 lr: 6.40000000000001e-06 evaluation reward: 7.11 episode: 4646 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 381 lr: 6.40000000000001e-06 evaluation reward: 7.09 episode: 4647 score: 9.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 453 evaluation reward: 7.09 episode: 4648 memory length: 1000000 score: 8.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 424 evaluation reward: 7.05 memory length: 1000000 episode: 4649 score: 7.0 epsilon: 0.009998020008555413 steps: 357 lr: 6.40000000000001e-06 evaluation reward: 7.0 memory length: 1000000 episode: 4650 score: 7.0 epsilon: 0.009998020008555413 steps: 397 lr: 6.40000000000001e-06 evaluation reward: 7.04 episode: 4651 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 376 lr: 6.40000000000001e-06 evaluation reward: 7.04 episode: 4652 score: 9.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 449 evaluation reward: 7.07 episode: 4653 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 371 evaluation reward: 7.05 memory length: 1000000 episode: 4654 score: 5.0 epsilon: 0.009998020008555413 steps: 280 lr: 6.40000000000001e-06 evaluation reward: 7.03 episode: 4655 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 179 evaluation reward: 7.02 episode: 4656 score: 7.0 memory length: 1000000 0.009998020008555413 steps: 371 lr: 6.40000000000001e-06 evaluation reward: 7.05 episode: 4657 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 371 lr: 6.40000000000001e-06 evaluation reward: 7.07 episode: 4658 score: 4.0 memory length: 1000000 0.009998020008555413 lr: 6.40000000000001e-06 steps: 292 evaluation reward: 7.05 episode: 4659 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 476 lr: 6.40000000000001e-06 evaluation reward: 7.05

memory length: 1000000 episode: 4660 score: 6.0 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 350 evaluation reward: 7.0 episode: 4661 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 225 evaluation reward: 7.0 episode: 4662 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 453 lr: 6.40000000000001e-06 evaluation reward: 7.06 episode: 4663 score: 7.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 396 evaluation reward: 7.08 episode: 4664 memory length: 1000000 score: 3.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 7.08 memory length: 1000000 episode: 4665 score: 7.0 epsilon: 0.009998020008555413 steps: 371 lr: 6.40000000000001e-06 evaluation reward: 7.08 memory length: 1000000 episode: 4666 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 6.40000000000001e-06 evaluation reward: 7.01 episode: 4667 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 414 lr: 6.40000000000001e-06 evaluation reward: 7.07 episode: 4668 score: 5.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 280 evaluation reward: 7.09 episode: 4669 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 503 evaluation reward: 7.16 memory length: 1000000 episode: 4670 score: 7.0 epsilon: 0.009998020008555413 steps: 396 lr: 6.40000000000001e-06 evaluation reward: 7.14 episode: 4671 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 298 evaluation reward: 7.1 episode: 4672 score: 6.0 memory length: 1000000 0.009998020008555413 steps: 311 lr: 6.40000000000001e-06 evaluation reward: 7.07 episode: 4673 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 298 lr: 6.40000000000001e-06 evaluation reward: 7.01 episode: 4674 memory length: 1000000 score: 3.0 0.009998020008555413 lr: 6.40000000000001e-06 steps: 225 evaluation reward: 6.95 episode: 4675 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 298 lr: 6.40000000000001e-06 evaluation reward: 6.97

epsilon: episode: 4676 score: 9.0 memory length: 1000000 0.009998020008555413 steps: 441 lr: 6.40000000000001e-06 evaluation reward: 6.96 episode: 4677 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 374 lr: 6.40000000000001e-06 evaluation reward: 6.96 episode: 4678 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 232 lr: 6.40000000000001e-06 evaluation reward: 6.84 episode: 4679 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 308 evaluation reward: 6.82 episode: 4680 memory length: 1000000 score: 3.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 6.75 memory length: 1000000 episode: 4681 score: 5.0 epsilon: 0.009998020008555413 steps: 298 lr: 6.40000000000001e-06 evaluation reward: 6.66 episode: 4682 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 295 lr: 6.40000000000001e-06 evaluation reward: 6.66 episode: 4683 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 298 lr: 6.40000000000001e-06 evaluation reward: 6.65 episode: 4684 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 327 evaluation reward: 6.67 episode: 4685 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 309 evaluation reward: 6.66 memory length: 1000000 episode: 4686 score: 4.0 epsilon: 0.009998020008555413 steps: 256 lr: 6.40000000000001e-06 evaluation reward: 6.62 episode: 4687 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 309 evaluation reward: 6.63 episode: 4688 score: 5.0 memory length: 1000000 0.009998020008555413 steps: 280 lr: 6.40000000000001e-06 evaluation reward: 6.62 episode: 4689 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 274 evaluation reward: 6.61 episode: 4690 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 298 evaluation reward: 6.58 episode: 4691 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 278 lr: 6.40000000000001e-06 evaluation reward: 6.58

episode: 4692 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 317 lr: 6.40000000000001e-06 evaluation reward: 6.59 episode: 4693 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 360 lr: 6.40000000000001e-06 evaluation reward: 6.6 episode: 4694 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 298 lr: 6.40000000000001e-06 evaluation reward: 6.57 episode: 4695 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 309 evaluation reward: 6.53 episode: 4696 memory length: 1000000 score: 4.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 256 evaluation reward: 6.45 memory length: 1000000 episode: 4697 score: 4.0 epsilon: 0.009998020008555413 steps: 256 lr: 6.40000000000001e-06 evaluation reward: 6.42 episode: 4698 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 256 lr: 6.40000000000001e-06 evaluation reward: 6.4 episode: 4699 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 260 lr: 6.40000000000001e-06 evaluation reward: 6.39 episode: 4700 score: 5.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 298 evaluation reward: 6.35 episode: 4701 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 225 evaluation reward: 6.34 memory length: 1000000 episode: 4702 score: 7.0 epsilon: 0.009998020008555413 steps: 358 lr: 6.40000000000001e-06 evaluation reward: 6.35 episode: 4703 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 313 evaluation reward: 6.3 episode: 4704 score: 7.0 memory length: 1000000 0.009998020008555413 steps: 378 lr: 6.40000000000001e-06 evaluation reward: 6.28 episode: 4705 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 210 lr: 6.40000000000001e-06 evaluation reward: 6.25 episode: 4706 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 225 evaluation reward: 6.18 episode: 4707 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 309 lr: 6.40000000000001e-06 evaluation reward: 6.17

epsilon: episode: 4708 score: 7.0 memory length: 1000000 lr: 6.40000000000001e-06 0.009998020008555413 steps: 378 evaluation reward: 6.15 episode: 4709 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 397 lr: 6.40000000000001e-06 evaluation reward: 6.17 episode: 4710 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 256 lr: 6.40000000000001e-06 evaluation reward: 6.16 episode: 4711 score: 5.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 298 evaluation reward: 6.15 episode: 4712 memory length: 1000000 score: 3.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 245 evaluation reward: 6.12 memory length: 1000000 episode: 4713 score: 2.0 epsilon: 0.009998020008555413 steps: 197 lr: 6.40000000000001e-06 evaluation reward: 6.07 episode: 4714 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 392 lr: 6.40000000000001e-06 evaluation reward: 6.08 episode: 4715 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 294 lr: 6.40000000000001e-06 evaluation reward: 6.07 episode: 4716 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 345 evaluation reward: 6.08 episode: 4717 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 294 evaluation reward: 6.08 memory length: 1000000 episode: 4718 score: 5.0 epsilon: 0.009998020008555413 steps: 298 lr: 6.40000000000001e-06 evaluation reward: 6.07 episode: 4719 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 278 evaluation reward: 6.04 score: 6.0 episode: 4720 memory length: 1000000 0.009998020008555413 steps: 311 lr: 6.40000000000001e-06 evaluation reward: 6.04 episode: 4721 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 256 lr: 6.40000000000001e-06 evaluation reward: 6.02 episode: 4722 score: 6.0 memory length: 1000000 0.009998020008555413 lr: 6.40000000000001e-06 steps: 345 evaluation reward: 6.02 episode: 4723 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 150 lr: 6.40000000000001e-06 evaluation reward: 5.97

memory length: 1000000 epsilon: episode: 4724 score: 8.0 0.009998020008555413 lr: 6.40000000000001e-06 steps: 423 evaluation reward: 5.99 episode: 4725 score: 3.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 232 evaluation reward: 5.94 episode: 4726 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 425 lr: 6.40000000000001e-06 evaluation reward: 5.94 episode: 4727 score: 4.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 256 evaluation reward: 5.91 episode: 4728 memory length: 1000000 score: 4.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 292 evaluation reward: 5.91 memory length: 1000000 episode: 4729 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 6.40000000000001e-06 evaluation reward: 5.86 memory length: 1000000 episode: 4730 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 6.40000000000001e-06 evaluation reward: 5.82 episode: 4731 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 280 lr: 6.40000000000001e-06 evaluation reward: 5.79 episode: 4732 score: 4.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 260 evaluation reward: 5.76 episode: 4733 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 468 evaluation reward: 5.83 memory length: 1000000 episode: 4734 score: 3.0 epsilon: 0.009998020008555413 steps: 228 lr: 6.40000000000001e-06 evaluation reward: 5.79 episode: 4735 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 353 evaluation reward: 5.76 episode: 4736 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 257 lr: 6.40000000000001e-06 evaluation reward: 5.73 episode: 4737 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 458 lr: 6.40000000000001e-06 evaluation reward: 5.72 episode: 4738 memory length: 1000000 score: 7.0 0.009998020008555413 lr: 6.40000000000001e-06 steps: 358 evaluation reward: 5.72 episode: 4739 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 298 lr: 6.40000000000001e-06 evaluation reward: 5.69

memory length: 1000000 epsilon: episode: 4740 score: 3.0 0.009998020008555413 steps: 225 lr: 6.40000000000001e-06 evaluation reward: 5.59 episode: 4741 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 274 lr: 6.40000000000001e-06 evaluation reward: 5.54 episode: 4742 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 6.40000000000001e-06 evaluation reward: 5.5 episode: 4743 score: 7.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 376 evaluation reward: 5.47 episode: 4744 memory length: 1000000 score: 7.0 epsilon: steps: 358 lr: 6.40000000000001e-06 0.009998020008555413 evaluation reward: 5.45 memory length: 1000000 episode: 4745 score: 5.0 epsilon: 0.009998020008555413 steps: 280 lr: 6.40000000000001e-06 evaluation reward: 5.46 episode: 4746 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 260 lr: 6.40000000000001e-06 evaluation reward: 5.43 episode: 4747 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 256 lr: 6.40000000000001e-06 evaluation reward: 5.38 episode: 4748 score: 12.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 443 evaluation reward: 5.42 episode: 4749 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 343 evaluation reward: 5.41 memory length: 1000000 episode: 4750 score: 7.0 epsilon: 0.009998020008555413 steps: 364 lr: 6.40000000000001e-06 evaluation reward: 5.41 episode: 4751 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 210 evaluation reward: 5.37 episode: 4752 score: 8.0 memory length: 1000000 0.009998020008555413 steps: 409 lr: 6.40000000000001e-06 evaluation reward: 5.36 episode: 4753 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 420 lr: 6.40000000000001e-06 evaluation reward: 5.37 episode: 4754 score: 5.0 memory length: 1000000 0.009998020008555413 lr: 6.40000000000001e-06 steps: 280 evaluation reward: 5.37 episode: 4755 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 358 lr: 6.40000000000001e-06 evaluation reward: 5.42

memory length: 1000000 episode: 4756 score: 3.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 5.38 episode: 4757 score: 3.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 5.34 episode: 4758 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 343 lr: 6.40000000000001e-06 evaluation reward: 5.37 episode: 4759 score: 3.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 5.31 episode: 4760 memory length: 1000000 score: 11.0 epsilon: steps: 535 lr: 6.40000000000001e-06 0.009998020008555413 evaluation reward: 5.36 memory length: 1000000 episode: 4761 score: 4.0 epsilon: 0.009998020008555413 steps: 293 lr: 6.40000000000001e-06 evaluation reward: 5.37 episode: 4762 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 365 lr: 6.40000000000001e-06 evaluation reward: 5.35 episode: 4763 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 453 lr: 6.40000000000001e-06 evaluation reward: 5.38 episode: 4764 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 313 evaluation reward: 5.41 episode: 4765 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 378 evaluation reward: 5.41 memory length: 1000000 episode: 4766 score: 3.0 epsilon: 0.009998020008555413 steps: 232 lr: 6.40000000000001e-06 evaluation reward: 5.41 episode: 4767 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 280 evaluation reward: 5.37 episode: 4768 score: 2.0 memory length: 1000000 0.009998020008555413 steps: 197 lr: 6.40000000000001e-06 evaluation reward: 5.34 episode: 4769 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 6.40000000000001e-06 evaluation reward: 5.27 episode: 4770 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 292 evaluation reward: 5.25 episode: 4771 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 409 lr: 6.40000000000001e-06 evaluation reward: 5.28

memory length: 1000000 epsilon: episode: 4772 score: 5.0 lr: 6.40000000000001e-06 0.009998020008555413 steps: 298 evaluation reward: 5.27 episode: 4773 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 438 lr: 6.40000000000001e-06 evaluation reward: 5.32 episode: 4774 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 6.40000000000001e-06 evaluation reward: 5.31 episode: 4775 score: 7.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 362 evaluation reward: 5.33 episode: 4776 memory length: 1000000 score: 5.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 326 evaluation reward: 5.29 memory length: 1000000 episode: 4777 score: 14.0 epsilon: 0.009998020008555413 steps: 546 lr: 6.40000000000001e-06 evaluation reward: 5.35 memory length: 1000000 episode: 4778 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 6.40000000000001e-06 evaluation reward: 5.35 episode: 4779 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 329 lr: 6.40000000000001e-06 evaluation reward: 5.35 episode: 4780 score: 3.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 5.35 episode: 4781 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 256 evaluation reward: 5.34 memory length: 1000000 episode: 4782 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 6.40000000000001e-06 evaluation reward: 5.32 episode: 4783 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 228 evaluation reward: 5.3 episode: 4784 score: 3.0 memory length: 1000000 0.009998020008555413 steps: 228 lr: 6.40000000000001e-06 evaluation reward: 5.27 episode: 4785 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 6.40000000000001e-06 evaluation reward: 5.24 episode: 4786 score: 3.0 memory length: 1000000 0.009998020008555413 lr: 6.40000000000001e-06 steps: 225 evaluation reward: 5.23 episode: 4787 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 387 lr: 6.40000000000001e-06 evaluation reward: 5.25

memory length: 1000000 epsilon: episode: 4788 score: 7.0 lr: 6.40000000000001e-06 0.009998020008555413 steps: 373 evaluation reward: 5.27 episode: 4789 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 256 evaluation reward: 5.27 episode: 4790 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 6.40000000000001e-06 evaluation reward: 5.25 episode: 4791 score: 3.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 5.23 episode: 4792 memory length: 1000000 score: 5.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 327 evaluation reward: 5.22 memory length: 1000000 episode: 4793 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 6.40000000000001e-06 evaluation reward: 5.18 memory length: 1000000 episode: 4794 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 6.40000000000001e-06 evaluation reward: 5.16 episode: 4795 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 308 lr: 6.40000000000001e-06 evaluation reward: 5.15 episode: 4796 score: 1.0 memory length: 1000000 epsilon: steps: 150 lr: 6.40000000000001e-06 0.009998020008555413 evaluation reward: 5.12 episode: 4797 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 225 evaluation reward: 5.11 memory length: 1000000 episode: 4798 score: 6.0 epsilon: 0.009998020008555413 steps: 343 lr: 6.40000000000001e-06 evaluation reward: 5.13 episode: 4799 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 365 evaluation reward: 5.15 episode: 4800 score: 14.0 memory length: 1000000 0.009998020008555413 steps: 484 lr: 6.40000000000001e-06 evaluation reward: 5.24 episode: 4801 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 313 lr: 6.40000000000001e-06 evaluation reward: 5.27 episode: 4802 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 181 evaluation reward: 5.22 episode: 4803 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 150 lr: 6.40000000000001e-06 evaluation reward: 5.17

epsilon: episode: 4804 score: 2.0 memory length: 1000000 0.009998020008555413 steps: 179 lr: 6.40000000000001e-06 evaluation reward: 5.12 episode: 4805 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 181 lr: 6.40000000000001e-06 evaluation reward: 5.11 episode: 4806 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 181 lr: 6.40000000000001e-06 evaluation reward: 5.1 episode: 4807 score: 2.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 5.06 episode: 4808 memory length: 1000000 score: 3.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 5.02 memory length: 1000000 episode: 4809 score: 6.0 epsilon: 0.009998020008555413 steps: 327 lr: 6.40000000000001e-06 evaluation reward: 5.01 episode: 4810 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 150 lr: 6.40000000000001e-06 evaluation reward: 4.98 episode: 4811 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 150 lr: 6.40000000000001e-06 evaluation reward: 4.94 episode: 4812 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 358 evaluation reward: 4.97 episode: 4813 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 225 evaluation reward: 4.98 memory length: 1000000 episode: 4814 score: 8.0 epsilon: 0.009998020008555413 steps: 408 lr: 6.40000000000001e-06 evaluation reward: 4.99 episode: 4815 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 296 evaluation reward: 4.98 score: 7.0 episode: 4816 memory length: 1000000 epsilon: 0.009998020008555413 steps: 402 lr: 6.40000000000001e-06 evaluation reward: 4.99 episode: 4817 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 439 lr: 6.40000000000001e-06 evaluation reward: 5.03 episode: 4818 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 245 evaluation reward: 5.02 episode: 4819 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 313 lr: 6.40000000000001e-06 evaluation reward: 5.03

epsilon: episode: 4820 score: 1.0 memory length: 1000000 0.009998020008555413 steps: 150 lr: 6.40000000000001e-06 evaluation reward: 4.98 episode: 4821 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 150 lr: 6.40000000000001e-06 evaluation reward: 4.95 episode: 4822 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 150 lr: 6.40000000000001e-06 evaluation reward: 4.9 episode: 4823 score: 7.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 362 evaluation reward: 4.96 episode: 4824 memory length: 1000000 score: 1.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 150 evaluation reward: 4.89 memory length: 1000000 episode: 4825 score: 4.0 epsilon: 0.009998020008555413 steps: 255 lr: 6.40000000000001e-06 evaluation reward: 4.9 episode: 4826 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 150 lr: 6.40000000000001e-06 evaluation reward: 4.83 episode: 4827 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 335 lr: 6.40000000000001e-06 evaluation reward: 4.85 episode: 4828 score: 9.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 424 evaluation reward: 4.9 episode: 4829 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 354 evaluation reward: 4.93 memory length: 1000000 episode: 4830 score: 4.0 epsilon: 0.009998020008555413 steps: 255 lr: 6.40000000000001e-06 evaluation reward: 4.94 episode: 4831 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 360 evaluation reward: 4.96 score: 7.0 episode: 4832 memory length: 1000000 0.009998020008555413 steps: 378 lr: 6.40000000000001e-06 evaluation reward: 4.99 episode: 4833 score: 12.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 469 lr: 6.40000000000001e-06 evaluation reward: 5.01 episode: 4834 score: 11.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 465 lr: 6.40000000000001e-06 evaluation reward: 5.09 episode: 4835 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 447 lr: 6.40000000000001e-06 evaluation reward: 5.11

memory length: 1000000 epsilon: episode: 4836 score: 6.0 lr: 6.40000000000001e-06 0.009998020008555413 steps: 309 evaluation reward: 5.13 episode: 4837 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 397 evaluation reward: 5.11 episode: 4838 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 424 lr: 6.40000000000001e-06 evaluation reward: 5.12 episode: 4839 score: 6.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 329 evaluation reward: 5.13 episode: 4840 memory length: 1000000 score: 8.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 419 evaluation reward: 5.18 memory length: 1000000 episode: 4841 score: 1.0 epsilon: 0.009998020008555413 steps: 150 lr: 6.40000000000001e-06 evaluation reward: 5.15 memory length: 1000000 episode: 4842 score: 5.0 epsilon: 0.009998020008555413 steps: 308 lr: 6.40000000000001e-06 evaluation reward: 5.17 episode: 4843 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 150 lr: 6.40000000000001e-06 evaluation reward: 5.11 episode: 4844 memory length: 1000000 score: 2.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 197 evaluation reward: 5.06 episode: 4845 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 232 evaluation reward: 5.04 memory length: 1000000 episode: 4846 score: 1.0 epsilon: 0.009998020008555413 steps: 150 lr: 6.40000000000001e-06 evaluation reward: 5.01 episode: 4847 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 259 evaluation reward: 5.01 episode: 4848 score: 2.0 memory length: 1000000 0.009998020008555413 steps: 181 lr: 6.40000000000001e-06 evaluation reward: 4.91 episode: 4849 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 197 lr: 6.40000000000001e-06 evaluation reward: 4.87 episode: 4850 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 179 evaluation reward: 4.82 episode: 4851 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 6.40000000000001e-06 evaluation reward: 4.81

epsilon: episode: 4852 score: 1.0 memory length: 1000000 lr: 6.40000000000001e-06 0.009998020008555413 steps: 150 evaluation reward: 4.74 episode: 4853 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 6.40000000000001e-06 evaluation reward: 4.68 episode: 4854 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 6.40000000000001e-06 evaluation reward: 4.66 episode: 4855 score: 3.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 4.62 episode: 4856 memory length: 1000000 score: 2.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 4.61 memory length: 1000000 episode: 4857 score: 1.0 epsilon: 0.009998020008555413 steps: 150 lr: 6.40000000000001e-06 evaluation reward: 4.59 episode: 4858 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 243 lr: 6.40000000000001e-06 evaluation reward: 4.56 episode: 4859 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 197 lr: 6.40000000000001e-06 evaluation reward: 4.55 episode: 4860 memory length: 1000000 score: 2.0 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 4.46 episode: 4861 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 392 evaluation reward: 4.5 memory length: 1000000 episode: 4862 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 6.40000000000001e-06 evaluation reward: 4.45 episode: 4863 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 225 evaluation reward: 4.38 score: 6.0 episode: 4864 memory length: 1000000 epsilon: 0.009998020008555413 steps: 336 lr: 6.40000000000001e-06 evaluation reward: 4.38 episode: 4865 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 226 lr: 6.40000000000001e-06 evaluation reward: 4.34 episode: 4866 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 179 evaluation reward: 4.33 episode: 4867 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 6.40000000000001e-06 evaluation reward: 4.31

memory length: 1000000 epsilon: episode: 4868 score: 4.0 0.009998020008555413 steps: 277 lr: 6.40000000000001e-06 evaluation reward: 4.33 episode: 4869 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 6.40000000000001e-06 evaluation reward: 4.32 episode: 4870 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 306 lr: 6.40000000000001e-06 evaluation reward: 4.32 episode: 4871 score: 8.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 426 evaluation reward: 4.32 episode: 4872 memory length: 1000000 score: 3.0 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 225 evaluation reward: 4.3 memory length: 1000000 episode: 4873 score: 8.0 epsilon: 0.009998020008555413 steps: 388 lr: 6.40000000000001e-06 evaluation reward: 4.28 memory length: 1000000 episode: 4874 score: 4.0 epsilon: 0.009998020008555413 steps: 245 lr: 6.40000000000001e-06 evaluation reward: 4.3 episode: 4875 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 6.40000000000001e-06 evaluation reward: 4.25 episode: 4876 score: 8.0 memory length: 1000000 epsilon: lr: 6.40000000000001e-06 0.009998020008555413 steps: 397 evaluation reward: 4.28 episode: 4877 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 179 evaluation reward: 4.16 memory length: 1000000 episode: 4878 score: 5.0 epsilon: 0.009998020008555413 steps: 295 lr: 6.40000000000001e-06 evaluation reward: 4.18 episode: 4879 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 6.40000000000001e-06 steps: 339 evaluation reward: 4.17 score: 5.0 episode: 4880 memory length: 1000000 0.009998020008555413 steps: 295 lr: 2.560000000000001e-06 evaluation reward: 4.19 episode: 4881 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.56000000000001e-06 evaluation reward: 4.18 episode: 4882 score: 4.0 memory length: 1000000 0.009998020008555413 lr: 2.560000000000001e-06 steps: 279 evaluation reward: 4.19 episode: 4883 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 536 lr: 2.560000000000001e-06 evaluation reward: 4.26

memory length: 1000000 epsilon: episode: 4884 score: 2.0 lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 4.25 episode: 4885 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 4.24 episode: 4886 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 4.23 episode: 4887 score: 3.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 231 evaluation reward: 4.18 episode: 4888 memory length: 1000000 score: 8.0 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 444 evaluation reward: 4.19 memory length: 1000000 episode: 4889 score: 2.0 epsilon: 0.009998020008555413 steps: 197 lr: 2.56000000000001e-06 evaluation reward: 4.17 memory length: 1000000 episode: 4890 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.56000000000001e-06 evaluation reward: 4.16 episode: 4891 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.560000000000001e-06 evaluation reward: 4.16 episode: 4892 memory length: 1000000 score: 2.0 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 4.13 episode: 4893 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 4.12 memory length: 1000000 episode: 4894 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 4.11 episode: 4895 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 151 evaluation reward: 4.07 episode: 4896 score: 1.0 memory length: 1000000 0.009998020008555413 steps: 150 lr: 2.560000000000001e-06 evaluation reward: 4.07 episode: 4897 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 453 lr: 2.56000000000001e-06 evaluation reward: 4.13 episode: 4898 memory length: 1000000 score: 4.0 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 243 evaluation reward: 4.11 episode: 4899 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 243 lr: 2.560000000000001e-06 evaluation reward: 4.09

epsilon: episode: 4900 score: 1.0 memory length: 1000000 lr: 2.560000000000001e-06 0.009998020008555413 steps: 150 evaluation reward: 3.96 episode: 4901 score: 1.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 150 evaluation reward: 3.91 episode: 4902 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.91 episode: 4903 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 197 evaluation reward: 3.92 episode: 4904 memory length: 1000000 score: 1.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 150 evaluation reward: 3.91 memory length: 1000000 episode: 4905 score: 1.0 epsilon: 0.009998020008555413 steps: 150 lr: 2.56000000000001e-06 evaluation reward: 3.9 memory length: 1000000 episode: 4906 score: 1.0 epsilon: 0.009998020008555413 steps: 150 lr: 2.56000000000001e-06 evaluation reward: 3.89 episode: 4907 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.89 episode: 4908 score: 6.0 memory length: 1000000 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 319 evaluation reward: 3.92 episode: 4909 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 3.88 memory length: 1000000 episode: 4910 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.89 episode: 4911 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 295 evaluation reward: 3.93 episode: 4912 score: 2.0 memory length: 1000000 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.89 episode: 4913 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.56000000000001e-06 evaluation reward: 3.89 episode: 4914 memory length: 1000000 score: 3.0 0.009998020008555413 lr: 2.560000000000001e-06 steps: 225 evaluation reward: 3.84 episode: 4915 score: 5.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 295 evaluation reward: 3.85

epsilon: episode: 4916 score: 1.0 memory length: 1000000 lr: 2.560000000000001e-06 0.009998020008555413 steps: 150 evaluation reward: 3.79 episode: 4917 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 3.72 episode: 4918 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.7 episode: 4919 score: 8.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 438 evaluation reward: 3.72 episode: 4920 memory length: 1000000 score: 2.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.73 memory length: 1000000 episode: 4921 score: 1.0 epsilon: 0.009998020008555413 steps: 150 lr: 2.56000000000001e-06 evaluation reward: 3.73 memory length: 1000000 episode: 4922 score: 3.0 epsilon: 0.009998020008555413 steps: 212 lr: 2.56000000000001e-06 evaluation reward: 3.75 episode: 4923 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 212 lr: 2.560000000000001e-06 evaluation reward: 3.71 episode: 4924 memory length: 1000000 score: 2.0 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.72 episode: 4925 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 3.7 memory length: 1000000 episode: 4926 score: 1.0 epsilon: 0.009998020008555413 steps: 150 lr: 2.560000000000001e-06 evaluation reward: 3.7 episode: 4927 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 150 evaluation reward: 3.65 score: 1.0 episode: 4928 memory length: 1000000 0.009998020008555413 steps: 150 lr: 2.560000000000001e-06 evaluation reward: 3.57 episode: 4929 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 212 lr: 2.56000000000001e-06 evaluation reward: 3.54 episode: 4930 score: 3.0 memory length: 1000000 0.009998020008555413 lr: 2.560000000000001e-06 steps: 212 evaluation reward: 3.53 episode: 4931 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.48

epsilon: episode: 4932 score: 8.0 memory length: 1000000 0.009998020008555413 steps: 438 lr: 2.560000000000001e-06 evaluation reward: 3.49 episode: 4933 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.39 episode: 4934 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 151 lr: 2.560000000000001e-06 evaluation reward: 3.29 episode: 4935 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.23 episode: 4936 memory length: 1000000 score: 1.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 150 evaluation reward: 3.18 memory length: 1000000 episode: 4937 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.56000000000001e-06 evaluation reward: 3.13 episode: 4938 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 180 lr: 2.56000000000001e-06 evaluation reward: 3.07 episode: 4939 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.03 episode: 4940 memory length: 1000000 score: 2.0 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 2.97 episode: 4941 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 197 evaluation reward: 2.98 memory length: 1000000 episode: 4942 score: 4.0 epsilon: 0.009998020008555413 steps: 257 lr: 2.560000000000001e-06 evaluation reward: 2.97 episode: 4943 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 179 evaluation reward: 2.98 score: 4.0 episode: 4944 memory length: 1000000 epsilon: 0.009998020008555413 steps: 257 lr: 2.560000000000001e-06 evaluation reward: 3.0 episode: 4945 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 179 evaluation reward: 2.99 episode: 4946 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 3.0 episode: 4947 score: 6.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 347 evaluation reward: 3.02

memory length: 1000000 epsilon: episode: 4948 score: 6.0 0.009998020008555413 lr: 2.560000000000001e-06 steps: 339 evaluation reward: 3.06 episode: 4949 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 313 evaluation reward: 3.09 episode: 4950 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 384 lr: 2.560000000000001e-06 evaluation reward: 3.15 episode: 4951 score: 8.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 438 evaluation reward: 3.21 episode: 4952 memory length: 1000000 score: 8.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 438 evaluation reward: 3.28 memory length: 1000000 episode: 4953 score: 4.0 epsilon: 0.009998020008555413 steps: 261 lr: 2.56000000000001e-06 evaluation reward: 3.3 memory length: 1000000 episode: 4954 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.56000000000001e-06 evaluation reward: 3.29 episode: 4955 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.560000000000001e-06 evaluation reward: 3.29 episode: 4956 score: 10.0 memory length: 1000000 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 457 evaluation reward: 3.37 episode: 4957 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 225 evaluation reward: 3.39 memory length: 1000000 episode: 4958 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.37 episode: 4959 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 150 evaluation reward: 3.36 score: 3.0 episode: 4960 memory length: 1000000 epsilon: 0.009998020008555413 steps: 212 lr: 2.560000000000001e-06 evaluation reward: 3.37 episode: 4961 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.56000000000001e-06 evaluation reward: 3.32 episode: 4962 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 150 evaluation reward: 3.31 episode: 4963 score: 3.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 243 evaluation reward: 3.31

memory length: 1000000 epsilon: episode: 4964 score: 3.0 lr: 2.560000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 3.28 episode: 4965 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 225 evaluation reward: 3.28 episode: 4966 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 150 lr: 2.560000000000001e-06 evaluation reward: 3.27 episode: 4967 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.26 episode: 4968 memory length: 1000000 score: 1.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 150 evaluation reward: 3.23 memory length: 1000000 episode: 4969 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 2.56000000000001e-06 evaluation reward: 3.24 memory length: 1000000 episode: 4970 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 2.56000000000001e-06 evaluation reward: 3.22 episode: 4971 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 150 lr: 2.560000000000001e-06 evaluation reward: 3.15 episode: 4972 memory length: 1000000 score: 3.0 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 212 evaluation reward: 3.15 episode: 4973 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 150 evaluation reward: 3.08 memory length: 1000000 episode: 4974 score: 3.0 epsilon: 0.009998020008555413 steps: 226 lr: 2.560000000000001e-06 evaluation reward: 3.07 episode: 4975 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 226 evaluation reward: 3.08 episode: 4976 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 383 lr: 2.560000000000001e-06 evaluation reward: 3.07 episode: 4977 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.56000000000001e-06 evaluation reward: 3.08 episode: 4978 memory length: 1000000 score: 3.0 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 225 evaluation reward: 3.06 episode: 4979 score: 3.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 3.04

memory length: 1000000 epsilon: episode: 4980 score: 2.0 lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.01 episode: 4981 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 3.0 episode: 4982 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 212 lr: 2.560000000000001e-06 evaluation reward: 2.99 episode: 4983 score: 8.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 439 evaluation reward: 2.97 episode: 4984 memory length: 1000000 score: 9.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 434 evaluation reward: 3.04 memory length: 1000000 episode: 4985 score: 7.0 epsilon: 0.009998020008555413 steps: 406 lr: 2.56000000000001e-06 evaluation reward: 3.09 memory length: 1000000 episode: 4986 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.56000000000001e-06 evaluation reward: 3.09 episode: 4987 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 150 lr: 2.560000000000001e-06 evaluation reward: 3.07 episode: 4988 memory length: 1000000 score: 2.0 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.01 episode: 4989 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 225 evaluation reward: 3.02 memory length: 1000000 episode: 4990 score: 9.0 epsilon: 0.009998020008555413 steps: 434 lr: 2.560000000000001e-06 evaluation reward: 3.09 episode: 4991 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 179 evaluation reward: 3.08 episode: 4992 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.08 episode: 4993 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.56000000000001e-06 evaluation reward: 3.09 episode: 4994 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 225 evaluation reward: 3.1 episode: 4995 score: 1.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 150 evaluation reward: 3.1

memory length: 1000000 epsilon: episode: 4996 score: 2.0 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 3.11 episode: 4997 score: 3.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 212 evaluation reward: 3.05 episode: 4998 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 150 lr: 2.560000000000001e-06 evaluation reward: 3.02 episode: 4999 score: 1.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 150 evaluation reward: 2.99 episode: 5000 memory length: 1000000 score: 1.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 150 evaluation reward: 2.99 memory length: 1000000 episode: 5001 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.56000000000001e-06 evaluation reward: 3.0 episode: 5002 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.56000000000001e-06 evaluation reward: 3.01 episode: 5003 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.01 episode: 5004 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 495 evaluation reward: 3.1 episode: 5005 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 350 evaluation reward: 3.15 memory length: 1000000 episode: 5006 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.16 episode: 5007 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 289 evaluation reward: 3.19 score: 7.0 episode: 5008 memory length: 1000000 epsilon: 0.009998020008555413 steps: 394 lr: 2.560000000000001e-06 evaluation reward: 3.2 episode: 5009 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.56000000000001e-06 evaluation reward: 3.21 episode: 5010 score: 8.0 memory length: 1000000 0.009998020008555413 lr: 2.560000000000001e-06 steps: 434 evaluation reward: 3.27 episode: 5011 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 466 lr: 2.560000000000001e-06 evaluation reward: 3.32

memory length: 1000000 epsilon: episode: 5012 score: 1.0 0.009998020008555413 lr: 2.560000000000001e-06 steps: 150 evaluation reward: 3.31 episode: 5013 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 342 evaluation reward: 3.34 episode: 5014 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 197 lr: 2.560000000000001e-06 evaluation reward: 3.33 episode: 5015 score: 1.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 150 evaluation reward: 3.29 episode: 5016 memory length: 1000000 score: 2.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.3 memory length: 1000000 episode: 5017 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.56000000000001e-06 evaluation reward: 3.3 episode: 5018 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 255 lr: 2.56000000000001e-06 evaluation reward: 3.32 episode: 5019 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 345 lr: 2.560000000000001e-06 evaluation reward: 3.3 episode: 5020 score: 9.0 memory length: 1000000 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 445 evaluation reward: 3.37 episode: 5021 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 3.38 memory length: 1000000 episode: 5022 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.37 episode: 5023 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 179 evaluation reward: 3.36 score: 2.0 episode: 5024 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.36 episode: 5025 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 212 lr: 2.56000000000001e-06 evaluation reward: 3.37 episode: 5026 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 225 evaluation reward: 3.39 episode: 5027 score: 5.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 295 evaluation reward: 3.43

memory length: 1000000 episode: 5028 score: 3.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 3.45 episode: 5029 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 294 evaluation reward: 3.47 episode: 5030 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.46 episode: 5031 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.46 episode: 5032 memory length: 1000000 score: 2.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.4 memory length: 1000000 episode: 5033 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.56000000000001e-06 evaluation reward: 3.4 episode: 5034 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.56000000000001e-06 evaluation reward: 3.41 episode: 5035 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.41 episode: 5036 score: 9.0 memory length: 1000000 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 490 evaluation reward: 3.49 episode: 5037 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 212 evaluation reward: 3.5 memory length: 1000000 episode: 5038 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 2.560000000000001e-06 evaluation reward: 3.51 episode: 5039 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 179 evaluation reward: 3.51 score: 2.0 episode: 5040 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.51 episode: 5041 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 212 lr: 2.56000000000001e-06 evaluation reward: 3.52 episode: 5042 score: 3.0 memory length: 1000000 0.009998020008555413 lr: 2.560000000000001e-06 steps: 212 evaluation reward: 3.51 episode: 5043 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.51

memory length: 1000000 epsilon: episode: 5044 score: 2.0 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 3.49 episode: 5045 score: 3.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 212 evaluation reward: 3.5 episode: 5046 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 150 lr: 2.560000000000001e-06 evaluation reward: 3.49 episode: 5047 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 150 evaluation reward: 3.44 episode: 5048 memory length: 1000000 score: 2.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.4 memory length: 1000000 episode: 5049 score: 1.0 epsilon: 0.009998020008555413 steps: 150 lr: 2.56000000000001e-06 evaluation reward: 3.36 memory length: 1000000 episode: 5050 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.56000000000001e-06 evaluation reward: 3.3 episode: 5051 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.560000000000001e-06 evaluation reward: 3.25 episode: 5052 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 416 evaluation reward: 3.25 episode: 5053 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 3.23 memory length: 1000000 episode: 5054 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.23 episode: 5055 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 179 evaluation reward: 3.22 episode: 5056 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.14 episode: 5057 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 179 evaluation reward: 3.13 episode: 5058 memory length: 1000000 score: 6.0 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 357 evaluation reward: 3.17 episode: 5059 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.18

memory length: 1000000 epsilon: episode: 5060 score: 2.0 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 3.17 episode: 5061 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 3.16 episode: 5062 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.17 episode: 5063 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.16 episode: 5064 memory length: 1000000 score: 5.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 325 evaluation reward: 3.18 memory length: 1000000 episode: 5065 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.56000000000001e-06 evaluation reward: 3.17 episode: 5066 memory length: 1000000 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 2.56000000000001e-06 evaluation reward: 3.19 episode: 5067 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.560000000000001e-06 evaluation reward: 3.2 episode: 5068 score: 3.0 memory length: 1000000 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 3.22 episode: 5069 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 225 evaluation reward: 3.22 memory length: 1000000 episode: 5070 score: 3.0 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 226 evaluation reward: 3.22 episode: 5071 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 179 evaluation reward: 3.23 episode: 5072 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 150 lr: 2.560000000000001e-06 evaluation reward: 3.21 episode: 5073 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 179 evaluation reward: 3.22 episode: 5074 memory length: 1000000 score: 2.0 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 3.21 episode: 5075 score: 6.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 328 evaluation reward: 3.24

episode: 5076 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 150 evaluation reward: 3.18 episode: 5077 score: 1.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 150 evaluation reward: 3.16 episode: 5078 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.15 episode: 5079 score: 1.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 150 evaluation reward: 3.13 episode: 5080 memory length: 1000000 score: 2.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.13 memory length: 1000000 episode: 5081 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.56000000000001e-06 evaluation reward: 3.13 episode: 5082 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.56000000000001e-06 evaluation reward: 3.12 episode: 5083 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 278 lr: 2.560000000000001e-06 evaluation reward: 3.08 episode: 5084 memory length: 1000000 score: 2.0 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.01 episode: 5085 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 2.96 memory length: 1000000 episode: 5086 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.96 episode: 5087 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 179 evaluation reward: 2.97 episode: 5088 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 299 lr: 2.560000000000001e-06 evaluation reward: 2.99 episode: 5089 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.56000000000001e-06 evaluation reward: 2.99 episode: 5090 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 2.92 episode: 5091 score: 3.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 2.93

episode: 5092 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 150 lr: 2.560000000000001e-06 evaluation reward: 2.92 episode: 5093 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.91 episode: 5094 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.560000000000001e-06 evaluation reward: 2.91 episode: 5095 score: 3.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 2.93 episode: 5096 memory length: 1000000 score: 2.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 2.93 memory length: 1000000 episode: 5097 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.56000000000001e-06 evaluation reward: 2.92 episode: 5098 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.56000000000001e-06 evaluation reward: 2.93 episode: 5099 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.94 episode: 5100 memory length: 1000000 score: 2.0 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 2.95 episode: 5101 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 2.95 memory length: 1000000 episode: 5102 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.94 episode: 5103 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 179 evaluation reward: 2.94 episode: 5104 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.560000000000001e-06 evaluation reward: 2.87 episode: 5105 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.56000000000001e-06 evaluation reward: 2.84 episode: 5106 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 2.84 episode: 5107 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 2.81

memory length: 1000000 episode: 5108 score: 3.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 2.77 episode: 5109 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 277 evaluation reward: 2.78 episode: 5110 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.72 episode: 5111 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 2.64 episode: 5112 memory length: 1000000 score: 2.0 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 2.65 memory length: 1000000 episode: 5113 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.56000000000001e-06 evaluation reward: 2.61 episode: 5114 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 289 lr: 2.56000000000001e-06 evaluation reward: 2.64 episode: 5115 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.65 episode: 5116 memory length: 1000000 score: 2.0 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 2.65 episode: 5117 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 2.65 memory length: 1000000 episode: 5118 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 2.560000000000001e-06 evaluation reward: 2.64 episode: 5119 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 225 evaluation reward: 2.61 score: 2.0 episode: 5120 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.54 episode: 5121 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.56000000000001e-06 evaluation reward: 2.55 episode: 5122 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 2.55 episode: 5123 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 2.55

epsilon: episode: 5124 score: 2.0 memory length: 1000000 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.55 episode: 5125 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.54 episode: 5126 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.53 episode: 5127 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 2.5 episode: 5128 memory length: 1000000 score: 3.0 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 225 evaluation reward: 2.5 memory length: 1000000 episode: 5129 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.56000000000001e-06 evaluation reward: 2.47 episode: 5130 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 339 lr: 2.56000000000001e-06 evaluation reward: 2.51 episode: 5131 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.51 episode: 5132 score: 3.0 memory length: 1000000 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 2.52 episode: 5133 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 2.52 memory length: 1000000 episode: 5134 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.52 episode: 5135 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 179 evaluation reward: 2.52 episode: 5136 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.45 episode: 5137 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 179 evaluation reward: 2.44 episode: 5138 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 2.43 episode: 5139 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 2.43

episode: 5140 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.43 episode: 5141 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.42 episode: 5142 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.560000000000001e-06 evaluation reward: 2.42 episode: 5143 score: 5.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 289 evaluation reward: 2.45 episode: 5144 memory length: 1000000 score: 4.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 260 evaluation reward: 2.47 memory length: 1000000 episode: 5145 score: 6.0 epsilon: 0.009998020008555413 steps: 339 lr: 2.56000000000001e-06 evaluation reward: 2.5 episode: 5146 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.56000000000001e-06 evaluation reward: 2.52 episode: 5147 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.560000000000001e-06 evaluation reward: 2.54 episode: 5148 score: 6.0 memory length: 1000000 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 317 evaluation reward: 2.58 episode: 5149 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 225 evaluation reward: 2.6 memory length: 1000000 episode: 5150 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 2.560000000000001e-06 evaluation reward: 2.61 episode: 5151 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 289 evaluation reward: 2.63 episode: 5152 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.57 episode: 5153 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 179 evaluation reward: 2.57 episode: 5154 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 2.57 episode: 5155 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 2.57

episode: 5156 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 2.57 episode: 5157 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.57 episode: 5158 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.53 score: 5.0 episode: 5159 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 295 evaluation reward: 2.56 episode: 5160 memory length: 1000000 score: 2.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 2.56 memory length: 1000000 episode: 5161 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.56000000000001e-06 evaluation reward: 2.56 episode: 5162 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 307 lr: 2.56000000000001e-06 evaluation reward: 2.59 episode: 5163 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.59 episode: 5164 memory length: 1000000 score: 2.0 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 2.56 episode: 5165 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 319 evaluation reward: 2.6 memory length: 1000000 episode: 5166 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.59 episode: 5167 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 225 evaluation reward: 2.59 episode: 5168 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.58 episode: 5169 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 179 evaluation reward: 2.57 episode: 5170 score: 3.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 2.57 episode: 5171 score: 3.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 2.58

memory length: 1000000 epsilon: episode: 5172 score: 3.0 0.009998020008555413 lr: 2.560000000000001e-06 steps: 225 evaluation reward: 2.6 episode: 5173 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 225 evaluation reward: 2.61 episode: 5174 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 391 lr: 2.560000000000001e-06 evaluation reward: 2.66 score: 5.0 episode: 5175 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 286 evaluation reward: 2.65 episode: 5176 memory length: 1000000 score: 3.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 2.67 memory length: 1000000 episode: 5177 score: 8.0 epsilon: 0.009998020008555413 steps: 411 lr: 2.56000000000001e-06 evaluation reward: 2.74 episode: 5178 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.56000000000001e-06 evaluation reward: 2.75 episode: 5179 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.560000000000001e-06 evaluation reward: 2.77 episode: 5180 score: 4.0 memory length: 1000000 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 297 evaluation reward: 2.79 episode: 5181 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 2.79 memory length: 1000000 episode: 5182 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.79 episode: 5183 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 225 evaluation reward: 2.78 score: 2.0 episode: 5184 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.78 episode: 5185 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 289 lr: 2.56000000000001e-06 evaluation reward: 2.81 episode: 5186 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 225 evaluation reward: 2.82 episode: 5187 score: 3.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 2.83

epsilon: episode: 5188 score: 2.0 memory length: 1000000 lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 2.81 episode: 5189 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.8 episode: 5190 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.8 episode: 5191 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 2.79 episode: 5192 memory length: 1000000 score: 3.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 2.81 memory length: 1000000 episode: 5193 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 2.56000000000001e-06 evaluation reward: 2.82 episode: 5194 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.56000000000001e-06 evaluation reward: 2.82 episode: 5195 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.560000000000001e-06 evaluation reward: 2.82 episode: 5196 score: 3.0 memory length: 1000000 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 226 evaluation reward: 2.83 episode: 5197 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 225 evaluation reward: 2.84 memory length: 1000000 episode: 5198 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 2.560000000000001e-06 evaluation reward: 2.85 episode: 5199 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 179 evaluation reward: 2.85 score: 3.0 episode: 5200 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.560000000000001e-06 evaluation reward: 2.86 episode: 5201 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 295 lr: 2.56000000000001e-06 evaluation reward: 2.89 episode: 5202 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 225 evaluation reward: 2.9 episode: 5203 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 2.9

memory length: 1000000 epsilon: episode: 5204 score: 3.0 0.009998020008555413 lr: 2.560000000000001e-06 steps: 225 evaluation reward: 2.9 episode: 5205 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 228 evaluation reward: 2.9 episode: 5206 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 290 lr: 2.560000000000001e-06 evaluation reward: 2.93 episode: 5207 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 2.93 episode: 5208 memory length: 1000000 score: 4.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 263 evaluation reward: 2.94 memory length: 1000000 episode: 5209 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 2.56000000000001e-06 evaluation reward: 2.93 episode: 5210 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 150 lr: 2.56000000000001e-06 evaluation reward: 2.92 episode: 5211 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 290 lr: 2.560000000000001e-06 evaluation reward: 2.95 episode: 5212 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 212 evaluation reward: 2.96 episode: 5213 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 150 evaluation reward: 2.95 memory length: 1000000 episode: 5214 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 2.92 episode: 5215 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 225 evaluation reward: 2.93 episode: 5216 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 317 lr: 2.560000000000001e-06 evaluation reward: 2.97 episode: 5217 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 226 lr: 2.56000000000001e-06 evaluation reward: 2.98 episode: 5218 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 2.97 episode: 5219 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 199 evaluation reward: 2.96

epsilon: episode: 5220 score: 4.0 memory length: 1000000 0.009998020008555413 steps: 248 lr: 2.560000000000001e-06 evaluation reward: 2.98 episode: 5221 score: 3.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 2.98 episode: 5222 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 521 lr: 2.560000000000001e-06 evaluation reward: 3.06 episode: 5223 score: 3.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 3.07 episode: 5224 memory length: 1000000 score: 4.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 256 evaluation reward: 3.09 memory length: 1000000 episode: 5225 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.56000000000001e-06 evaluation reward: 3.09 episode: 5226 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 256 lr: 2.56000000000001e-06 evaluation reward: 3.11 episode: 5227 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.11 episode: 5228 score: 3.0 memory length: 1000000 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 3.11 episode: 5229 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 226 evaluation reward: 3.12 memory length: 1000000 episode: 5230 score: 3.0 epsilon: 0.009998020008555413 steps: 226 lr: 2.560000000000001e-06 evaluation reward: 3.09 episode: 5231 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 225 evaluation reward: 3.1 episode: 5232 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.560000000000001e-06 evaluation reward: 3.1 episode: 5233 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.56000000000001e-06 evaluation reward: 3.11 episode: 5234 score: 9.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 445 lr: 2.560000000000001e-06 evaluation reward: 3.18 episode: 5235 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.18

memory length: 1000000 epsilon: episode: 5236 score: 8.0 lr: 2.560000000000001e-06 0.009998020008555413 steps: 374 evaluation reward: 3.24 episode: 5237 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 232 lr: 2.560000000000001e-06 evaluation reward: 3.25 episode: 5238 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.25 episode: 5239 score: 5.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 295 evaluation reward: 3.28 episode: 5240 memory length: 1000000 score: 3.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 3.29 memory length: 1000000 episode: 5241 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 2.56000000000001e-06 evaluation reward: 3.3 episode: 5242 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.56000000000001e-06 evaluation reward: 3.3 episode: 5243 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.27 episode: 5244 memory length: 1000000 score: 2.0 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.25 episode: 5245 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 3.21 memory length: 1000000 episode: 5246 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.2 episode: 5247 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 179 evaluation reward: 3.19 score: 2.0 episode: 5248 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.15 episode: 5249 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 179 evaluation reward: 3.14 episode: 5250 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 3.13 episode: 5251 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.1

memory length: 1000000 epsilon: episode: 5252 score: 2.0 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 3.1 episode: 5253 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 3.1 episode: 5254 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 150 lr: 2.560000000000001e-06 evaluation reward: 3.09 episode: 5255 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.09 episode: 5256 memory length: 1000000 score: 3.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 3.1 memory length: 1000000 episode: 5257 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 2.56000000000001e-06 evaluation reward: 3.11 episode: 5258 score: 8.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 438 lr: 2.56000000000001e-06 evaluation reward: 3.17 episode: 5259 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 319 lr: 2.560000000000001e-06 evaluation reward: 3.18 episode: 5260 score: 5.0 memory length: 1000000 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 295 evaluation reward: 3.21 episode: 5261 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 225 evaluation reward: 3.22 memory length: 1000000 episode: 5262 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 2.560000000000001e-06 evaluation reward: 3.2 episode: 5263 score: 11.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 551 evaluation reward: 3.29 score: 2.0 episode: 5264 memory length: 1000000 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.29 episode: 5265 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 179 evaluation reward: 3.25 episode: 5266 score: 3.0 memory length: 1000000 0.009998020008555413 lr: 2.560000000000001e-06 steps: 225 evaluation reward: 3.26 episode: 5267 score: 3.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 3.26

memory length: 1000000 epsilon: episode: 5268 score: 2.0 lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.26 episode: 5269 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.26 episode: 5270 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.25 episode: 5271 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.24 episode: 5272 memory length: 1000000 score: 3.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 3.24 memory length: 1000000 episode: 5273 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 2.56000000000001e-06 evaluation reward: 3.24 episode: 5274 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 179 lr: 2.56000000000001e-06 evaluation reward: 3.19 episode: 5275 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 295 lr: 2.560000000000001e-06 evaluation reward: 3.19 episode: 5276 score: 5.0 memory length: 1000000 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 295 evaluation reward: 3.21 episode: 5277 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 259 evaluation reward: 3.17 memory length: 1000000 episode: 5278 score: 7.0 epsilon: 0.009998020008555413 steps: 404 lr: 2.560000000000001e-06 evaluation reward: 3.21 episode: 5279 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 179 evaluation reward: 3.2 score: 1.0 episode: 5280 memory length: 1000000 epsilon: 0.009998020008555413 steps: 150 lr: 2.560000000000001e-06 evaluation reward: 3.17 episode: 5281 score: 1.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 150 lr: 2.56000000000001e-06 evaluation reward: 3.16 episode: 5282 score: 5.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 295 evaluation reward: 3.19 episode: 5283 score: 5.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 295 evaluation reward: 3.21

memory length: 1000000 epsilon: episode: 5284 score: 3.0 lr: 2.560000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 3.22 episode: 5285 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 3.19 episode: 5286 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 246 lr: 2.560000000000001e-06 evaluation reward: 3.19 episode: 5287 score: 3.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 3.19 episode: 5288 memory length: 1000000 score: 3.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 3.2 memory length: 1000000 episode: 5289 score: 5.0 epsilon: 0.009998020008555413 steps: 295 lr: 2.56000000000001e-06 evaluation reward: 3.23 episode: 5290 score: 4.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 259 lr: 2.56000000000001e-06 evaluation reward: 3.25 episode: 5291 score: 7.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 370 lr: 2.560000000000001e-06 evaluation reward: 3.3 episode: 5292 score: 5.0 memory length: 1000000 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 295 evaluation reward: 3.32 episode: 5293 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 3.31 memory length: 1000000 episode: 5294 score: 3.0 epsilon: 0.009998020008555413 steps: 225 lr: 2.560000000000001e-06 evaluation reward: 3.31 episode: 5295 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 179 evaluation reward: 3.3 episode: 5296 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.560000000000001e-06 evaluation reward: 3.3 episode: 5297 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.56000000000001e-06 evaluation reward: 3.3 episode: 5298 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 318 evaluation reward: 3.33 episode: 5299 score: 3.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 3.34

memory length: 1000000 epsilon: episode: 5300 score: 3.0 0.009998020008555413 lr: 2.560000000000001e-06 steps: 225 evaluation reward: 3.34 episode: 5301 score: 6.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 319 evaluation reward: 3.35 episode: 5302 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.560000000000001e-06 evaluation reward: 3.35 episode: 5303 score: 2.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.35 episode: 5304 memory length: 1000000 score: 2.0 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.34 memory length: 1000000 episode: 5305 score: 9.0 epsilon: 0.009998020008555413 steps: 455 lr: 2.56000000000001e-06 evaluation reward: 3.4 episode: 5306 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 199 lr: 2.56000000000001e-06 evaluation reward: 3.37 episode: 5307 score: 3.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 225 lr: 2.560000000000001e-06 evaluation reward: 3.38 episode: 5308 score: 2.0 memory length: 1000000 epsilon: lr: 2.56000000000001e-06 0.009998020008555413 steps: 179 evaluation reward: 3.36 episode: 5309 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.560000000000001e-06 steps: 179 evaluation reward: 3.35 memory length: 1000000 episode: 5310 score: 2.0 epsilon: 0.009998020008555413 steps: 179 lr: 2.560000000000001e-06 evaluation reward: 3.36 episode: 5311 score: 2.0 memory length: 1000000 epsilon: 0.009998020008555413 lr: 2.56000000000001e-06 steps: 179 evaluation reward: 3.33 episode: 5312 score: 3.0 memory length: 1000000 0.009998020008555413 steps: 225 lr: 2.560000000000001e-06 evaluation reward: 3.33 episode: 5313 score: 13.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 522 lr: 2.56000000000001e-06 evaluation reward: 3.45 episode: 5314 score: 10.0 memory length: 1000000 epsilon: 0.009998020008555413 steps: 555 lr: 2.560000000000001e-06 evaluation reward: 3.53 episode: 5315 score: 3.0 memory length: 1000000 epsilon: lr: 2.560000000000001e-06 0.009998020008555413 steps: 225 evaluation reward: 3.53

```
score: 5.0 memory length: 1000000
episode: 5316
                                                      epsilon:
0.009998020008555413
                                      lr: 2.56000000000001e-06
                        steps: 295
                                                                     evaluation
reward: 3.52
episode: 5317
                             memory length: 1000000
                score: 3.0
                                                      epsilon:
0.009998020008555413
                        steps: 225
                                      lr: 2.56000000000001e-06
                                                                     evaluation
reward: 3.52
episode: 5318
                score: 2.0
                             memory length: 1000000
                                                      epsilon:
0.009998020008555413
                        steps: 179
                                      lr: 2.560000000000001e-06
                                                                     evaluation
reward: 3.52
episode: 5319
                score: 3.0
                             memory length: 1000000
                                                      epsilon:
                                      lr: 2.56000000000001e-06
0.009998020008555413
                        steps: 225
                                                                     evaluation
reward: 3.53
episode: 5320
                             memory length: 1000000
                score: 3.0
                                                      epsilon:
                        steps: 225
                                      lr: 2.560000000000001e-06
0.009998020008555413
                                                                     evaluation
reward: 3.52
                             memory length: 1000000
episode: 5321
                score: 3.0
                                                      epsilon:
0.009998020008555413
                        steps: 225
                                      lr: 2.560000000000001e-06
                                                                     evaluation
reward: 3.52
                             memory length: 1000000
episode: 5322
                score: 3.0
                                                      epsilon:
0.009998020008555413
                        steps: 225
                                      lr: 2.560000000000001e-06
                                                                     evaluation
reward: 3.45
episode: 5323
                score: 3.0
                             memory length: 1000000
                                                      epsilon:
0.009998020008555413
                        steps: 225
                                      lr: 2.560000000000001e-06
                                                                     evaluation
reward: 3.45
episode: 5324
                score: 5.0
                             memory length: 1000000
                                                      epsilon:
                                      lr: 2.56000000000001e-06
0.009998020008555413
                        steps: 295
                                                                     evaluation
reward: 3.46
episode: 5325
                score: 3.0
                             memory length: 1000000
                                                      epsilon:
0.009998020008555413
                                      lr: 2.560000000000001e-06
                        steps: 225
                                                                     evaluation
reward: 3.47
                             memory length: 1000000
episode: 5326
                score: 3.0
                                                      epsilon:
0.009998020008555413
                        steps: 225
                                      lr: 2.560000000000001e-06
                                                                     evaluation
reward: 3.46
                             memory length: 1000000
episode: 5327
                score: 9.0
                                                      epsilon:
                                      lr: 2.56000000000001e-06
0.009998020008555413
                        steps: 498
                                                                     evaluation
reward: 3.53
 KeyboardInterrupt
                                           Traceback (most recent call last)
 Input In [8], in <cell line: 7>()
      42 # Start training after random sample generation
      43 if(frame >= train_frame):
             agent.train_policy_net(frame)
 ---> 44
      45 score += reward
      46 history[:1, :, :] = history[1:, :, :]
```

```
File ~/QA_generator/CS444/mp5/agent_lstm.py:52, in Agent_LSTM.
 otrain_policy_net(self, frame)
     49 if self.epsilon > self.epsilon_min:
            self.epsilon -= self.epsilon_decay
---> 52 mini batch = self.memory.sample mini batch(frame)
     53 mini_batch = np.array(mini_batch, dtype=object).transpose()
     55 history = np.stack(mini batch[0], axis=0)
File ~/QA generator/CS444/mp5/memory.py:65, in ReplayMemoryLSTM.
 ⇒sample_mini_batch(self, frame)
     63 \text{ sample} = []
     64 for j in range(lstm_seq_length + 1):
            sample.append(self.memory[i + j])
---> 65
     66 sample = np.array(sample, dtype=object)
     67 mini_batch.append((np.stack(sample[:, 0], axis=0),__
 ⇒sample[lstm_seq_length - 1, 1], sample[lstm_seq_length - 1, 2],
 ⇒sample[1stm seq length - 1, 3]))
KeyboardInterrupt:
```

Error in callback <function flush figures at 0x14eeeda8c1f0> (for post_execute):

```
KeyboardInterrupt
                                          Traceback (most recent call last)
File /sw/external/python/anaconda3_gpu/lib/python3.9/site-packages/
 matplotlib_inline/backend_inline.py:121, in flush_figures()
    118 if InlineBackend.instance().close_figures:
    119
            # ignore the tracking, just draw and close all figures
    120
            try:
--> 121
                return show(True)
    122
            except Exception as e:
                # safely show traceback if in IPython, else raise
    123
    124
                ip = get_ipython()
File /sw/external/python/anaconda3_gpu/lib/python3.9/site-packages/
 smatplotlib_inline/backend_inline.py:41, in show(close, block)
     39 try:
            for figure_manager in Gcf.get_all_fig_managers():
     40
                display(
---> 41
                    figure manager canvas figure,
     42
     43
                    metadata=_fetch_figure_metadata(figure_manager.canvas.figur)
     44
     45 finally:
            show. to draw = []
     46
File /sw/external/python/anaconda3_gpu/lib/python3.9/site-packages/IPython/core
 display_functions.py:298, in display(include, exclude, metadata, transient,
 ⇔display id, raw, clear, *objs, **kwargs)
```

```
publish_display_data(data=obj, metadata=metadata, **kwargs)
    296
    297 else:
--> 298
            format_dict, md_dict = format(obj, include=include, exclude=exclude
            if not format dict:
    299
                # nothing to display (e.g. ipython display took over)
    300
    301
                continue
File /sw/external/python/anaconda3_gpu/lib/python3.9/site-packages/IPython/core
 oformatters.py:178, in DisplayFormatter.format(self, obj, include, exclude)
    176 \text{ md} = \text{None}
    177 try:
            data = formatter(obj)
--> 178
    179 except:
    180
            # FIXME: log the exception
    181
File <decorator-gen-2>:2, in __call__(self, obj)
File /sw/external/python/anaconda3_gpu/lib/python3.9/site-packages/IPython/core
 oformatters.py:222, in catch format error(method, self, *args, **kwargs)
    220 """show traceback on failed format call"""
    221 try:
            r = method(self, *args, **kwargs)
--> 222
    223 except NotImplementedError:
    224
            # don't warn on NotImplementedErrors
            return self._check_return(None, args[0])
    225
File /sw/external/python/anaconda3_gpu/lib/python3.9/site-packages/IPython/core.
 oformatters.py:339, in BaseFormatter. call (self, obj)
    337
            pass
    338 else:
--> 339
            return printer(obj)
    340 # Finally look for special method names
    341 method = get_real_method(obj, self.print_method)
File /sw/external/python/anaconda3 gpu/lib/python3.9/site-packages/IPython/core
 pylabtools.py:151, in print figure(fig, fmt, bbox inches, base64, **kwargs)
            from matplotlib.backend bases import FigureCanvasBase
            FigureCanvasBase(fig)
    149
--> 151 fig.canvas.print_figure(bytes_io, **kw)
    152 data = bytes_io.getvalue()
    153 if fmt == 'svg':
File /sw/external/python/anaconda3 gpu/lib/python3.9/site-packages/matplotlib/
 →backend_bases.py:2319, in FigureCanvasBase.print_figure(self, filename, dpi,
 ofacecolor, edgecolor, orientation, format, bbox inches, pad inches,
 ⇔bbox extra artists, backend, **kwargs)
   2315 try:
```

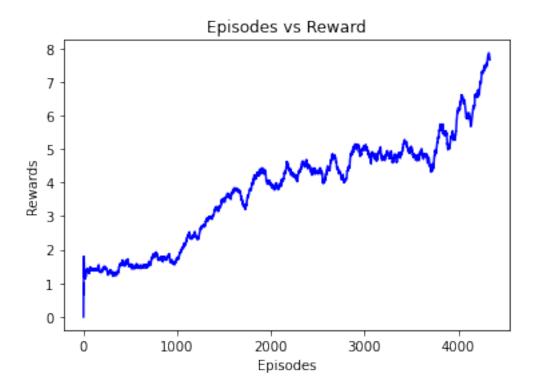
```
2316
                        # _get_renderer may change the figure dpi (as vector formats
      2317
                        # force the figure dpi to 72), so we need to set it again here.
                        with cbook._setattr_cm(self.figure, dpi=dpi):
      2318
-> 2319
                                result = print method(
      2320
                                        filename.
      2321
                                         facecolor=facecolor,
      2322
                                         edgecolor=edgecolor,
                                         orientation=orientation.
      2323
      2324
                                         bbox inches restore= bbox inches restore,
      2325
                                         **kwargs)
      2326 finally:
      2327
                        if bbox_inches and restore_bbox:
File /sw/external/python/anaconda3 gpu/lib/python3.9/site-packages/matplotlib/
   بbackend_bases.py:1648, in _check_savefig_extra_args.<locals>.wrapper(*args, المالة عليه المالة الم
  →**kwargs)
      1640
                        api.warn deprecated(
      1641
                                 '3.3', name=name, removal='3.6',
      1642
                                message='%(name)s() got unexpected keyword argument "'
      1643
                                                 + arg + '" which is no longer supported as of '
      1644
                                                 '%(since)s and will become an error '
                                                 '%(removal)s')
      1645
      1646
                        kwargs.pop(arg)
-> 1648 return func(*args, **kwargs)
File /sw/external/python/anaconda3 gpu/lib/python3.9/site-packages/matplotlib/
   _api/deprecation.py:412, in delete_parameter.<locals>.wrapper(*inner_args, الم
  →**inner kwargs)
                        deprecation addendum = (
        402
                                f"If any parameter follows {name!r}, they should be passed as "
        403
        404
                                f"keyword, not positionally.")
                        warn_deprecated(
        405
        406
                                since,
        407
                                name=repr(name),
      (...)
        410
                                                   else deprecation_addendum,
        411
                                **kwargs)
--> 412 return func(*inner_args, **inner_kwargs)
File /sw/external/python/anaconda3 gpu/lib/python3.9/site-packages/matplotlib/
  →backends/backend_agg.py:540, in FigureCanvasAgg.print_png(self,

→filename_or_obj, metadata, pil_kwargs, *args)
        490 @ check savefig extra args
        491 @_api.delete_parameter("3.5", "args")
        492 def print_png(self, filename_or_obj, *args,
        493
                                             metadata=None, pil_kwargs=None):
        494
        495
                        Write the figure to a PNG file.
```

```
496
   (...)
    538
                *metadata*, including the default 'Software' key.
            0.00
    539
--> 540
            FigureCanvasAgg.draw(self)
    541
            mpl.image.imsave(
    542
                filename or obj, self.buffer rgba(), format="png",
 ⇔origin="upper",
    543
                dpi=self.figure.dpi, metadata=metadata, pil kwargs=pil kwargs)
File /sw/external/python/anaconda3 gpu/lib/python3.9/site-packages/matplotlib/
 ⇔backends/backend_agg.py:436, in FigureCanvasAgg.draw(self)
    432 # Acquire a lock on the shared font cache.
    433 with RendererAgg.lock, \
             (self.toolbar._wait_cursor_for_draw_cm() if self.toolbar
    434
    435
              else nullcontext()):
--> 436
            self.figure.draw(self.renderer)
    437
            # A GUI class may be need to update a window using this draw, so
    438
            # don't forget to call the superclass.
    439
            super().draw()
File /sw/external/python/anaconda3 gpu/lib/python3.9/site-packages/matplotlib/
 ⇔artist.py:73, in _finalize_rasterization.<locals>.draw_wrapper(artist, __
 →renderer, *args, **kwargs)
     71 @wraps(draw)
     72 def draw_wrapper(artist, renderer, *args, **kwargs):
            result = draw(artist, renderer, *args, **kwargs)
---> 73
     74
            if renderer._rasterizing:
     75
                renderer.stop_rasterizing()
File /sw/external/python/anaconda3_gpu/lib/python3.9/site-packages/matplotlib/
 →artist.py:50, in allow rasterization.<locals>.draw wrapper(artist, renderer)
     47
            if artist.get_agg_filter() is not None:
                renderer.start_filter()
            return draw(artist, renderer)
---> 50
     51 finally:
     52
            if artist.get_agg_filter() is not None:
File /sw/external/python/anaconda3 gpu/lib/python3.9/site-packages/matplotlib/
 ⇔figure.py:2810, in Figure.draw(self, renderer)
                # ValueError can occur when resizing a window.
   2807
   2809 self.patch.draw(renderer)
-> 2810 mimage._draw_list_compositing_images(
            renderer, self, artists, self.suppressComposite)
   2811
   2813 for sfig in self.subfigs:
   2814
            sfig.draw(renderer)
```

```
File /sw/external/python/anaconda3_gpu/lib/python3.9/site-packages/matplotlib/
 ⇔suppress_composite)
    130 if not composite or not has images:
   131
           for a in artists:
--> 132
               a.draw(renderer)
    133 else:
           # Composite any adjacent images together
    134
           image_group = []
    135
File /sw/external/python/anaconda3_gpu/lib/python3.9/site-packages/matplotlib/
 →artist.py:50, in allow_rasterization.<locals>.draw_wrapper(artist, renderer)
    47
           if artist.get_agg_filter() is not None:
    48
               renderer.start_filter()
---> 50
           return draw(artist, renderer)
    51 finally:
           if artist.get_agg_filter() is not None:
File /sw/external/python/anaconda3_gpu/lib/python3.9/site-packages/matplotlib/
 →axes/_base.py:3082, in _AxesBase.draw(self, renderer)
   3079
               a.draw(renderer)
           renderer.stop_rasterizing()
   3080
-> 3082 mimage._draw_list_compositing_images(
           renderer, self, artists, self.figure.suppressComposite)
   3085 renderer.close_group('axes')
   3086 self.stale = False
File /sw/external/python/anaconda3 gpu/lib/python3.9/site-packages/matplotlib/
 →image.py:132, in draw_list compositing images(renderer, parent, artists, _____
 ⇔suppress_composite)
   130 if not_composite or not has_images:
           for a in artists:
   131
--> 132
               a.draw(renderer)
    133 else:
           # Composite any adjacent images together
    135
           image_group = []
File /sw/external/python/anaconda3_gpu/lib/python3.9/site-packages/matplotlib/
 artist.py:50, in allow_rasterization.<locals>.draw_wrapper(artist, renderer)
           if artist.get agg filter() is not None:
    48
               renderer.start filter()
           return draw(artist, renderer)
---> 50
    51 finally:
    52
           if artist.get_agg_filter() is not None:
File /sw/external/python/anaconda3 gpu/lib/python3.9/site-packages/matplotlib/
 ⇔lines.py:776, in Line2D.draw(self, renderer)
                   gc.set_sketch_params(*self.get_sketch_params())
   773
```

```
775
                gc.set_dashes(self._dashOffset, self._dashSeq)
--> 776
                renderer draw_path(gc, tpath, affine frozen())
    777
                gc.restore()
    779 if self._marker and self._markersize > 0:
File /sw/external/python/anaconda3_gpu/lib/python3.9/site-packages/matplotlib/
 ⇒backends/backend_agg.py:170, in RendererAgg.draw_path(self, gc, path, u
 →transform, rgbFace)
    168 else:
    169
            try:
--> 170
                self._renderer.draw_path(gc, path, transform, rgbFace)
    171
            except OverflowError as err:
    172
                cant_chunk = ''
KeyboardInterrupt:
```



2 Visualize Agent Performance

```
[]: torch.save(agent.policy_net, "./save_model/breakout_dqn_lstm_latest.pth")
[]:|from gym.wrappers import RecordVideo # If importing monitor raises issues, try_
      →using `from gym.wrappers import RecordVideo`
     import glob
     import io
     import base64
     from IPython.display import HTML
     from IPython import display as ipythondisplay
     from pyvirtualdisplay import Display
     env = gym.make('BreakoutDeterministic-v4', render_mode='rgb_array')
     state = env.reset()
     number_lives = find_max_lives(env)
     state_size = env.observation_space.shape
     action_size = 3 #fire, left, and right
     # Displaying the game live
     def show_state(env, step=0, info=""):
         plt.figure(3)
         plt.clf()
         plt.imshow(env.render(mode='rgb_array'))
         plt.title("%s | Step: %d %s" % ("Agent Playing", step, info))
         plt.axis('off')
         ipythondisplay.clear_output(wait=True)
         ipythondisplay.display(plt.gcf())
     # Recording the game and replaying the game afterwards
     def show_video():
         mp4list = glob.glob('video/*.mp4')
         if len(mp4list) > 0:
             mp4 = mp4list[0]
             video = io.open(mp4, 'r+b').read()
             encoded = base64.b64encode(video)
             ipythondisplay.display(HTML(data='''<video style="height: 400px;"u
      ⇔controls="" loop="" autoplay="" alt="test">
                     <source type="video/mp4" src="data:video/mp4;base64,{0}">
                  </video>'''.format(encoded.decode('ascii'))))
         else:
             print("Could not find video")
```

```
def wrap_env(env):
    env = RecordVideo(env, './video')
    return env
```

```
[]: # display = Display(visible=0, size=(300, 200))
     # display.start()
     HISTORY_SIZE = 1
     # Load agent
     agent.load_policy_net("./save_model/breakout_dqn_lstm_latest.pth")
     agent.epsilon = 0.0 # Set agent to only exploit the best action
     env = gym.make('BreakoutDeterministic-v4', render_mode='rgb_array')
     env = wrap_env(env)
     done = False
     score = 0
     step = 0
     state, _ = env.reset()
    next_state = state
     life = number_lives
     history = np.zeros([HISTORY_SIZE + 1, 84, 84], dtype=np.uint8)
     get_init_state(history, state, HISTORY_SIZE)
     frame = 0
     hidden = None
     while not done:
         # Render breakout
           env.render()
           show_state(env, step) # uncommenting this provides another way to_
      ⇔visualize the game
         step += 1
         frame += 1
         # Perform a fire action if ball is no longer on screen
         if step > 1 and len(np.unique(next_state[:189] == state[:189])) < 2:
             action = torch.tensor([[0]]).cuda()
         else:
             action, hidden = agent.get_action(np.float32(history[:1, :, :]) / 255., __
      →hidden)
         state = next_state
         next_state, reward, done, _, info = env.step(action + 1)
         frame_next_state = get_frame(next_state)
```

```
history[1, :, :] = frame_next_state
  terminal_state = check_live(life, info['lives'])

life = info['lives']
  r = np.clip(reward, -1, 1)
  r = reward

# Store the transition in memory
  agent.memory.push(deepcopy(frame_next_state), action, r, terminal_state)
  # Start training after random sample generation
  score += reward

history[:1, :, :] = history[1:, :, :]
env.close()
show_video()
# display.stop()
```

3 Save as PDF

```
from google.colab import drive
drive.mount('/content/drive')

# install tex; first run may take several minutes

! apt-get install texlive-xetex

# file path and save location below are default; please change if they do not

→match yours

! jupyter nbconvert --output-dir='/content/drive/MyDrive/' '/content/drive/

→MyDrive/CS444/assignment5/MP5_DQNLSTM_EC.ipynb' --to pdf
```