In [8]:

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import random
import datetime
from collections import deque, defaultdict
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import tensorflow as tf
from tensorflow.keras.models import Sequential
from tensorflow.keras.layers import Dense, Conv2D, Flatten, Dropout
from tensorflow.keras.optimizers import Adam
from lightgbm import LGBMClassifier, plot_importance
class Simulator:
         def __init__(self):
                  self.sample_submission = pd.read_csv('module/sample_submission.csv')
                  self.max_count = pd.read_csv('module/max_count.csv')
                  self.stock = pd.read_csv('module/stock.csv')
                  self.order = pd.read_csv('module/order.csv')
                  cut = \{f'BLK_{i}': 506 \text{ if } i \le 2 \text{ else } 400 \text{ for } i \text{ in } range(1,5) \}
                  ratio = {}
                  ratio['BLK_1'] = {}
                  ratio['BLK_1'][4] = 0.851
                  ratio['BLK_1'][5] = 0.851
                  ratio['BLK_1'][6] = 0.851
                  ratio['BLK_2'] = \{\}
                  ratio['BLK_2'][4] = 0.901
                  ratio['BLK_2'][5] = 0.901
                   ratio['BLK_2'][6] = 0.901
                  ratio['BLK_3'] = \{\}
                   ratio['BLK_3'][4] = 0.710
                   ratio['BLK_3'][5] = 0.742
                   ratio['BLK_3'][6] = 0.759
                  ratio['BLK_4'] = \{\}
                   ratio['BLK_4'][4] = 0.700
                   ratio['BLK_4'][5] = 0.732
                  ratio['BLK_4'][6] = 0.749
                  self.cut = cut
                  self.ratio = ratio
                  order_dic = { }
                  order = self.order
                   for time, BLK_1, BLK_2, BLK_3, BLK_4 in zip(order['time'],order['BLK_1'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['BLK_2'],order['B
                            order_count_time = str(pd.to_datetime(time) + pd.Timedelta(hours=18))
                            order_dic[order_count_time] = {}
                            order_dic[order_count_time][1] = BLK_1
                            order_dic[order_count_time][2] = BLK_2
                            order_dic[order_count_time][3] = BLK_3
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order_dic[order_count_time][4] = BLK_4
             self.order_dic = order_dic
def make_init(self):
             PRT_dic = {time : {i : 0 for i in range(1,5)} for time in self.sample_submission['time']}
             MOL_dic = {time : {i : 0 for i in range(1,5)} for time in self.sample_submission['time']}
             BLK_dic = {time : {i : 0 for i in range(1,5)} for time in self.sample_submission['time']}
              ## 4/1일 00:00:00에 기초재고를 추가
              for i in range(1,5):
                          PRT_dic['2020-04-01 00:00:00'][i] = int(self.stock[f'PRT_{i}'])
                          MOL_dic['2020-04-01\ 00:00:00'][i] = int(self.stock[f'MOL_{i}'])
                          BLK_dic['2020-04-01\ 00:00:00'][i] = int(self.stock[f'BLK_{i}'])
             self.PRT_dic = PRT_dic
             self.MOL\_dic = MOL\_dic
             self.BLK_dic = BLK_dic
def cal prt mol(self.machine name):
             df = self.df
              # PRT 개수와 MOL 개수 구하기
             process_list = []
              for time, event, mol in zip(self.sample_submission['time'],df[f'Event_{machine_name}'],df[f
                           # check한 몰의 개수만큼 PRT로
                           try:
                                        val = int(event[-1])
                           except:
                                        pass
                           if event == 'PROCESS':
                                        process_list.append((time,mol,val))
                          self.PRT_dic[time][val] += -mol
              for p_start, p_end in zip(process_list[:-48],process_list[48:]):
                          p_start_time, p_start_mol, p_start_number = p_start
                          p_end_time, p_end_mol, p_end_number = p_end
                          self.MOL_dic[p_end_time][p_start_number] += p_start_mol * 0.975
def cal_blk(self):
             PRT_dic = self.PRT_dic
             MOL\_dic = self.MOL\_dic
             BLK_dic = self.BLK_dic
             order_dic = self.order_dic
             ratio = self.ratio
             cut = self.cut
             PRT_stock_dic = {time : {i : 0 for i in range(1,5)} for time in self.sample_submission['timestate of time in self.sample_submission['timestate of timestate of ti
             MOL_stock_dic = {time : {i : 0 for i in range(1,5)} for time in self.sample_submission['timestock_dic = {time : {i : 0 for i in range(1,5)} for time in self.sample_submission['timestock_dic = {time : {i : 0 for i in range(1,5)} for time in self.sample_submission['timestock_dic = {time : {i : 0 for i in range(1,5)} for time in self.sample_submission['timestock_dic = {time : {i : 0 for i in range(1,5)} for time in self.sample_submission['timestock_dic = {time : {i : 0 for i in range(1,5)} for timestock_dic = {time : {i : 0 for i in range(1,5)} for timestock_dic = {time : {i : 0 for i in range(1,5)} for timestock_dic = {time : {i : 0 for i in range(1,5)} for timestock_dic = {time : {i : 0 for i in range(1,5)} for timestock_dic = {time : {i : 0 for i in range(1,5)} for timestock_dic = {time : {i : 0 for i i in range(1,5)} for timestock_dic = {time : {i : 0 for i i in range(1,5)} for timestock_dic = {time : {i : 0 for i i in range(1,5)} for timestock_dic = {time : {i : 0 for i i in range(1,5)} for timestock_dic = {time : {i : 0 for i :
             BLK_stock_dic = {time : {i : 0 for i in range(1,5)} for time in self.sample_submission['timestate in self.sample_submission['timestate in self.sample_submission['timestate in self.sample_submission]
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blk_diffs = []
   previous_time = [self.sample_submission['time'][0]] + list(self.sample_submission['time'])
    for time, previous in zip(self.sample submission['time'], previous_time[:-1]):
       month = int(time[6])
        for i in range(1,5):
            if str(time) == '2020-04-01 00:00:00':
                PRT_stock_dic[time][i] = PRT_dic[time][i]
                MOL_stock_dic[time][i] = MOL_dic[time][i]
                BLK_stock_dic[time][i] = BLK_dic[time][i]
            else:
                PRT_stock_dic[time][i] = PRT_stock_dic[previous][i] + PRT_dic[time][i]
                MOL_stock_dic[time][i] = MOL_stock_dic[previous][i] + MOL_dic[time][i]
                BLK_stock_dic[time][i] = BLK_stock_dic[previous][i] + BLK_dic[time][i]
                if int(time[11:13]) == 18:
                    val = order dic[time][i]
                    if val > 0:
                        mol_number = i
                        mol = MOL_stock_dic[time][i]
                        MOL_stock_dic[time][i] = 0
                        blk_gen = int(mol*ratio[f'BLK_{i}'][month]*cut[f'BLK_{i}'])
                        blk_stock = BLK_stock_dic[time][i] + blk_gen
                        blk_diff = blk_stock - val
                        BLK_stock_dic[time][i] = blk_diff
                        blk_diffs.append(blk_diff)
    self.PRT_stock_dic = PRT_stock_dic
    self.MOL_stock_dic = MOL_stock_dic
    self.BLK_stock_dic = BLK_stock_dic
    self.blk_diffs = blk_diffs
def F(self, x, a): return 1 - x/a if x < a else 0
def cal_change_stop_time(self):
   df = self.df
    change_type = { 'A': '', 'B': ''}
    change_num = 0
    change_time = 0
    stop_num = 0
    stop\_time = 0
    previous_event = {'A':'', 'B':''}
    for row in df.iterrows():
        for machine in ['A', 'B']:
            if 'CHANGE' in row[1][f'Event_{machine}']:
                change_time += 1
                if change_type[machine] != row[1][f'Event_{machine}'][-2:]:
                    change_num += 1
                    change_type[machine] = row[1][f'Event_{machine}'][-2:]
            if 'STOP' == row[1][f'Event_{machine}']:
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stop_time += 1
                if previous_event[machine] != 'STOP':
                     stop_num += 1
            previous_event[machine] = row[1][f'Event_{machine}']
    return change_time, change_num, stop_time, stop_num
def cal_score(self):
    p = 0
    q = 0
    for item in self.blk_diffs:
        if item < 0:
            p = p + abs(item)
        if item > 0:
            q = q + abs(item)
    N = sum([sum(self.order[f'BLK_{i}]) for i in range(1,5)])
    M = len(self.df) * 2
    c, c_n, s, s_n = self.cal_change_stop_time()
    self.score = 50*self.F(p, 10*N)+20*self.F(q, 10*N)+W
            20*self.F(c, M)/(1+0.1*c_n) + 10*self.F(s, M)/(1+0.1*s_n)
    self.p = p
    self.q = q
    self.N = N
    self.M = M
    self.c = c
    self.c_n = c_n
    self.s = s
    self.s_n = s_n
    return self.score
def make_stock_df(self):
    PRT_{I} = \{i : [] \text{ for } i \text{ in } range(1,5)\}
    MOL_I = \{i : [] \text{ for } i \text{ in } range(1.5)\}
    BLK_1 = \{i : [] \text{ for } i \text{ in } range(1,5)\}
    for time in self.sample_submission['time']:
        for i in range(1,5):
            PRT_I[i].append(self.PRT_stock_dic[time][i])
            MOL_I[i].append(self.MOL_stock_dic[time][i])
            BLK_I[i].append(self.BLK_stock_dic[time][i])
    df_stock = pd.DataFrame(index = self.sample_submission['time'])
    for i in range(1,5):
        df_stock[f'PRT_{i}'] = PRT_I[i]
    for i in range(1.5):
        df_stock[f'MOL_{i}] = MOL_{i}
    for i in range(1,5):
        df_stock[f'BLK_{i}'] = BLK_{i}
    self.df_stock = df_stock
def get_score(self,df):
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self.df = df
        self.make_init()
        self.cal_prt_mol('A')
        self.cal_prt_mol('B')
        self.cal_blk()
        self.cal_score()
        self.make_stock_df()
        return self.score, self.df_stock
submission_ini = pd.read_csv('module/sample_submission.csv')
order_ini = pd.read_csv('module/order.csv')
order = order_ini.copy()
for i in range(35):
    order.loc[91+i,:] = ['0000-00-00', 0, 0, 0, 0]
class Env:
    def __init__(self):
        # Event 종류
        self.mask = np.zeros([5], np.bool) # 가능한 이벤트 검사용 마스크
        self.event_map = {0:'CHECK_1', 1:'CHECK_2', 2:'CHECK_3', 3:'CHECK_4', 4:'PROCESS'}
        self.simulator = Simulator()
        self.sample_submission = pd.read_csv('module/sample_submission.csv')
        self.max_count = pd.read_csv('module/max_count.csv')
        self.stock = pd.read_csv('module/stock.csv')
        self.order = pd.read_csv('module/order.csv')
        cut = np.zeros(4) # b/k_type
        cut[0] = 506
        cut[1] = 506
        cut[2] = 400
        cut[3] = 400
        ratio = np.zeros((3, 4)) # month, b/k_type
        ratio[0][0] = 0.851
        ratio[1][0] = 0.851
        ratio[2][0] = 0.851
        ratio[0][1] = 0.901
        ratio[1][1] = 0.901
        ratio[2][1] = 0.901
        ratio[0][2] = 0.710
        ratio[1][2] = 0.742
        ratio[2][2] = 0.759
        ratio[0][3] = 0.700
        ratio[1][3] = 0.732
        ratio[2][3] = 0.749
        self.cut = cut
        self.ratio = ratio
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self.order = self.order.values[:, 1:]
   self.reset()
def done(self):
   return self.s >= self.s_max
def state(self):
    inputs = np.array(order.loc[self.s//24:(self.s//24+30), 'BLK_1':'BLK_4']).reshape(-1)
    inputs = np.append(inputs, self.s%24)
    return inputs
def states(self):
   all_states = np.zeros((self.submission.shape[0] + 1, 125))
    for i in range(self.submission.shape[0] + 1):
       all_states[i][0:124] = np.array(order.loc[i//24:(i//24+30), 'BLK_1':'BLK_4']).reshape(-
       all_states[i][124] = i % 24
    return all_states
def reset(self):
    self.mask = np.zeros([5], np.bool)
    self.simulator = Simulator()
    self.submission = submission_ini.copy()
    self.submission.loc[:, 'PRT_1':'PRT_4'] = 0
    self.s = 0
    self.s_max = self.submission.shape[0]
   self.check\_time = 28
   self.process = 0
    self.process\_mode = 0
    self.process\_time = 0
   self.last_score = 30
   self.global_process_time = 0
   self.PRT_stock = np.zeros(4)
   self.MOL\_stock = np.zeros(4)
    self.BLK_stock = np.zeros(4)
    for i in range(4):
       self.PRT\_stock[i] = int(self.stock[f'PRT_{i+1}])
       self.MOL\_stock[i] = int(self.stock[f'MOL\_{i + 1}'])
       self.BLK_stock[i] = int(self.stock[f'BLK_{i + 1}'])
    self.process_A = np.zeros((self.submission.shape[0], 4))
    self.process_B = np.zeros((self.submission.shape[0], 4))
   self.update_mask()
def step(self, actions):
   day = self.s // 24
    if day <= 30:
       month = 0
    elif day <= 61:
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month = 1
else:
    month = 2
action1, action2 = actions
out1 = self.event_map[action1]
out2 = action2 / 2
if out1 == 'CHECK_1':
    if self.process == 1:
        self.process = 0
        self.check\_time = 28
    self.check_time -= 1
    self.process\_mode = 0
    if self.check_time == 0:
        self.process = 1
        self.process_time = 0
elif out1 == 'CHECK_2':
    if self.process == 1:
        self.process = 0
        self.check time = 28
    self.check_time -= 1
    self.process\_mode = 1
    if self.check_time == 0:
        self.process = 1
        self.process_time = 0
elif out1 == 'CHECK 3':
    if self.process == 1:
        self.process = 0
        self.check\_time = 28
    self.check_time -= 1
    self.process\_mode = 2
    if self.check_time == 0:
        self.process = 1
        self.process_time = 0
elif out1 == 'CHECK_4':
    if self.process == 1:
        self.process = 0
        self.check_time = 28
    self.check_time -= 1
    self.process_mode = 3
    if self.check_time == 0:
        self.process = 1
        self.process\_time = 0
elif out1 == 'PROCESS':
    self.process_time += 1
    self.global_process_time += 1
    if self.global_process_time >= 48:
        for i in range(4):
            self.MOL_stock[i] += self.process_A[self.global_process_time - 48][i] * 0.975
            self.MOL_stock[i] += self.process_B[self.global_process_time - 48][i] * 0.975
    if self.process_time == 140:
        self.process = 0
        self.check\_time = 28
self.submission.loc[self.s, 'Event_A'] = out1
if self.submission.loc[self.s, 'Event_A'] == 'PROCESS' and self.s >= 24*23: self.submission.loc[self.s, 'MOL_A'] = out2
    self.process_A[self.global_process_time][self.process_mode] += out2
    self.process_B[self.global_process_time][self.process_mode] += out2
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else:
           self.submission.loc[self.s, 'MOL_A'] = 0
       self.submission.loc[self.s, 'Event_B'] = self.submission.loc[self.s, 'Event_A']
       self.submission.loc[self.s, 'MOL_B'] = self.submission.loc[self.s, 'MOL_A']
       self.update_mask()
       self.s += 1
        if self.s % 24 == 18:
           blk_diff = 0
           for i in range(4):
                if self.order[day][i] != 0:
                   self.BLK_stock[i] += int(self.MOL_stock[i] * self.cut[i] * self.ratio[month][i]
                   self.MOL\_stock[i] = 0
                   self.BLK_stock[i] -= self.order[day][i]
                    if self.BLK_stock[i] < 0:</pre>
                       blk_diff += abs(self.BLK_stock[i]) * 5
                   elif self.BLK_stock[i] > 0:
                       blk_diff += abs(self.BLK_stock[i]) * 2
           if blk_diff != 0:
               blk_diff = 500000
           reward = -(blk_diff / 50000000)
           # print(f"{month+4}/{(day % 30)+1}", self.s, self.s_max)
            # print("MOL_STOCK", self.MOL_stock)
           # print("BLK_STOCK", self.BLK_stock)
           # print("blk_diff: ", blk_diff)
           # print(reward)
           # print()
       else:
           reward = 0
       return reward
   def get_score(self):
       score, stock = self.simulator.get_score(self.submission)
       return score
   def update_mask(self):
       self.mask[:] = False
        if self.process == 0:
           if self.check_time == 28:
               self.mask[:4] = True
           if self.check_time < 28:</pre>
               self.mask[self.process_mode] = True
        if self.process == 1:
           self.mask[4] = True
           if self.process_time > 98:
               self.mask[:4] = True
#모델 변수 설정
input_length = 125
                                       # 입력 데이터 길이
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```
# Event (CHECK_1~4, PROCESS)
output_length_1 = 5
output_length_2 = 12
                                       # MOL(0~5.5, step:0.5)
alpha = 0.01
alpha_decay = 0.01
dropout = 0.3
#모델 생성
model1 = Sequential()
model1.add(Dense(50, input_dim=input_length, activation='relu'))
# mode | 1.add(Dropout(dropout))
model1.add(Dense(50, activation='relu'))
# mode | 1.add(Dropout(dropout))
model1.add(Dense(50, activation='relu'))
# model1.add(Dropout(dropout))
model1.add(Dense(output_length_1, activation='linear'))
model1.compile(loss='mse', optimizer=Adam(|r=a|pha, decay=a|pha_decay))
mode12 = Sequential()
model2.add(Dense(50, input_dim=input_length, activation='relu'))
# mode | 2. add(Dropout (dropout))
model2.add(Dense(50, activation='relu'))
# mode12.add(Dropout(dropout))
model2.add(Dense(50, activation='relu'))
# mode 12. add(Dropout(dropout))
model2.add(Dense(output_length_2, activation='linear'))
model2.compile(loss='mse', optimizer=Adam(lr=alpha, decay=alpha_decay))
# 학습 변수 설정
EPOCHS = 2000
CHECK EPOCH = 1
THRESHOLD = 90
batch\_size = 2000
memory_size = 50000
gamma = 0.98
epsilon = 1
epsilon_min = 0.001
epsilon_decay = 0.95
memory = deque(maxlen=memory_size)
score_history = []
scores = deque(maxlen=CHECK_EPOCH)
avg_scores = []
#%% start train
for e in range(EPOCHS):
    env = Env()
    if e % CHECK_EPOCH == 0:
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print()
   print(f'epoch {e} start, epsilon: ', epsilon, ' time: ', datetime.datetime.now())
done = False
i = 0
# before_time = datetime.datetime.now()
states = env.states()
predicts1 = model1.predict(states)
predicts2 = model2.predict(states)
reward_sum = 0
action_dict = defaultdict(int)
out1_dict = defaultdict(int)
mask_dict = defaultdict(int)
while not done:
    # if i % 500 == 0:
         print(i, 'STEP! ', datetime.datetime.now())
          print('TIME: ', datetime.datetime.now() - before_time)
          print('Epsilon: ', epsilon1)
          before_time = datetime.datetime.now()
    # action 선택
    if np.random.random() <= epsilon:</pre>
       out1 = np.random.rand(output_length_1)
    else:
       out1 = predicts1[i]
    if np.random.random() <= epsilon:</pre>
       out2 = np.random.rand(output_length_2)
    else:
       out2 = predicts2[i]
   env.update_mask()
   action1 = np.argmax(out1 * env.mask)
    action2 = np.argmax(out2)
    # print(action1)
    action_dict[action1] += 1
    out1_dict[np.argmax(out1)] += 1
   mask_dict[tuple(env.mask)] += 1
    reward = env.step((action1, action2))
    reward_sum += reward
   done = env.done()
    # memory에 저장
    memory.append((states[i][np.newaxis, :], (action1, action2), reward, states[i + 1][np.newaxi
    i += 1
epsilon = max(epsilon_min, epsilon_decay * epsilon)
score = env.get_score()
s = env.simulator
```

```
print('부족분 점수: ', 50 * s.F(s.p, 10*s.N))
print('추가분 점수: ', 20 * s.F(s.q, 10*s.N))
    print('기타 점수: ', 20*s.F(s.c, s.M)/(1+0.1*s.c_n) + 10*s.F(s.s, s.M)/(1 + 0.1*s.s_n))
    scores.append(score)
    mean_score = np.average(scores)
    avg_scores.append(mean_score)
    score_history.append([e, score])
    # early-stop 확인 / 현재 상태
    if mean_score >= THRESHOLD and e >= CHECK_EPOCH:
        print(f'Ran {e + 1} times. Solved afer {e-CHECK_EPOCH} trials!')
        break
    if e % CHECK EPOCH == 0:
        print(f'[Episode {e + 1}] - Mean score over last {CHECK_EPOCH} times:{mean_score}')
    # replay
    x_batch1, y_batch1 = [], []
    x_batch2, y_batch2 = [], []
    minibatch = random.sample(memory, min(len(memory), batch_size))
    state = minibatch[0][0]
    states = np.empty((batch_size, state.shape[1]))
    next_states = np.empty((batch_size, state.shape[1]))
    for i, (state, actions, reward, next_state, done) in enumerate(minibatch):
        states[i] = np.squeeze(state)
        next_states[i] = np.squeeze(next_state)
    y_targets1 = model1.predict(states)
    y_targets2 = model2.predict(states)
    predicts1 = model1.predict(next_states)
    predicts2 = model2.predict(next_states)
    for i. (state, actions, reward, next_state, done) in enumerate(minibatch):
        action1, action2 = actions
        y_targets1[i][action1] = reward if done else reward + gamma * np.max(predicts1[i])
        x_batch1.append(state[0])
        y_batch1.append(y_targets1[i])
        y_targets2[i][action2] = reward if done else reward + gamma * np.max(predicts2[i])
        x_batch2.append(state[0])
        y_batch2.append(y_targets2[i])
    model1.fit(np.array(x_batch1), np.array(y_batch1), batch_size=len(minibatch), verbose=0)
    model2.fit(np.array(x_batch2), np.array(y_batch2), batch_size=len(minibatch), verbose=0)
    env.reset()
#%% show graph
score_history = np.array(score_history)
plt.plot(score_history[:,0], score_history[:,1], '-o', label='score')
```

```
plt.legend()
plt.xlim(0, EPOCHS)
plt.ylim(bottom=0)
plt.xlabel('Epochs')
plt.ylabel('Score')
plt.show()
env = Env()
done = False
while not env.done():
    state = env.state()[np.newaxis, :]
    # action 선택
    out1 = model1.predict(state)
    out2 = model2.predict(state)
    action1 = np.argmax(out1 * env.mask)
    action2 = np.argmax(out2)
    reward = env.step((action1, action2))
#재고계산
simulator = Simulator()
_, df_stock = simulator.get_score(env.submission)
# PRT 개수 계산
PRTs = df_stock[['PRT_1', 'PRT_2', 'PRT_3', 'PRT_4']].values
PRTs = (PRTs[:-1] - PRTs[1:])[24*23:]
PRTs = np.ceil(PRTs * 1.1)
PAD = np.zeros((24*23+1, 4))
PRTs = np.append(PRTs, PAD, axis=0).astype(int)
# Submission 파일에 PRT 입력
env.submission.loc[:, 'PRT_1':'PRT_4'] = PRTs
env.submission.to_csv('submission_dqn.csv', index=False)
epoch 0 start, epsilon: 1 time: 2020-06-29 13:59:34.163569
부족분 점수: 39.23417467388696
```

```
추가분 점수: 8.768027113287127
기타 점수: 30.0
[Episode 1] - Mean score over last 1 times:78.00220178717409
epoch 1 start, epsilon: 0.95 time: 2020-06-29 13:59:39.939328
부족분 점수: 23.527034487292642
추가분 점수: 1.7451567287224323
기타 점수: 30.0
[Episode 2] - Mean score over last 1 times:55.272191216015074
epoch 2 start, epsilon: 0.9025 time: 2020-06-29 13:59:43.571364
부족분 점수: 30.563222197406336
추가분 점수: 1.3637133062352014
기타 점수: 30.0
[Episode 3] - Mean score over last 1 times:61.92693550364154
epoch 3 start, epsilon: 0.857374999999999 time: 2020-06-29 13:59:46.958757
부족분 점수: 32.162331958970015
추가분 점수: 1.941396886039466
```

```
기타 점수: 30.0
```

[Episode 4] - Mean score over last 1 times:64.10372884500947

epoch 4 start, epsilon: 0.8145062499999999 time: 2020-06-29 13:59:50.181733

부족분 점수: 33.481035660227406

추가분 점수: 0 기타 점수: 30.0

[Episode 5] - Mean score over last 1 times:63.481035660227406

epoch 5 start, epsilon: 0.7737809374999999 time: 2020-06-29 13:59:53.326497

부족분 점수: 32.410124411574145 추가분 점수: 5.750142162273589

기타 점수: 30.0

[Episode 6] - Mean score over last 1 times:68.16026657384774

epoch 6 start, epsilon: 0.7350918906249998 time: 2020-06-29 13:59:56.527050

부족분 점수: 22.119130295602297 추가분 점수: 9.021094085772926

기타 점수: 30.0

[Episode 7] - Mean score over last 1 times:61.14022438137522

epoch 7 start, epsilon: 0.6983372960937497 time: 2020-06-29 13:59:59.674101

부족분 점수: 30.809556929884742 추가분 점수: 7.643826593669041

기타 점수: 30.0

[Episode 8] - Mean score over last 1 times:68.45338352355378

epoch 8 start, epsilon: 0.6634204312890623 time: 2020-06-29 14:00:02.891614

부족분 점수: 37.57197896336284 추가분 점수: 2.7758425822014376

기타 점수: 30.0

[Episode 9] - Mean score over last 1 times:70.34782154556427

epoch 9 start, epsilon: 0.6302494097246091 time: 2020-06-29 14:00:06.134687

부족분 점수: 19.914370847072107

추가분 점수: 0 기타 점수: 30.0

[Episode 10] - Mean score over last 1 times:49.91437084707211

epoch 10 start, epsilon: 0.5987369392383786 time: 2020-06-29 14:00:09.445246

부족분 점수: 27.43421749921584 추가분 점수: 1.7317868699507821

기타 점수: 30.0

[Episode 11] - Mean score over last 1 times:59.16600436916662

epoch 11 start, epsilon: 0.5688000922764596 time: 2020-06-29 14:00:12.659689

부족분 점수: 39.171116373991076 추가분 점수: 5.895723703512321

기타 점수: 30.0

[Episode 12] - Mean score over last 1 times:75.0668400775034

epoch 12 start, epsilon: 0.5403600876626365 time: 2020-06-29 14:00:15.938849

부족분 점수: 40.21279641717277 추가분 점수: 9.700112101596181

기타 점수: 30.0

[Episode 13] - Mean score over last 1 times:79.91290851876894

epoch 13 start, epsilon: 0.5133420832795047 time: 2020-06-29 14:00:19.199778

부족분 점수: 33.498585135924344 추가분 점수: 7.178793290370784

기타 점수: 30.0

[Episode 14] - Mean score over last 1 times:70.67737842629512

epoch 14 start, epsilon: 0.48767497911552943 time: 2020-06-29 14:00:22.474691

부족분 점수: 35.90167746874657 추가분 점수: 0.781513098129909

기타 점수: 30.0

[Episode 15] - Mean score over last 1 times:66.68319056687648

epoch 15 start, epsilon: 0.46329123015975293 time: 2020-06-29 14:00:25.740548

부족분 점수: 29.044740180204315

추가분 점수: 0 기타 점수: 30.0

[Episode 16] - Mean score over last 1 times:59.044740180204315

epoch 16 start, epsilon: 0.44012666865176525 time: 2020-06-29 14:00:28.994279

부족분 점수: 22.592347107585276

추가분 점수: 0 기타 점수: 30.0

[Episode 17] - Mean score over last 1 times:52.592347107585276

epoch 17 start, epsilon: 0.41812033521917696 time: 2020-06-29 14:00:32.242335

부족분 점수: 21.005556540340137 추가분 점수: 11.057059374522861

기타 점수: 30.0

[Episode 18] - Mean score over last 1 times:62.062615914863

epoch 18 start, epsilon: 0.3972143184582181 time: 2020-06-29 14:00:35.539021

부족분 점수: 37.33906324354863 추가분 점수: 11.29791529125371

기타 점수: 30.0

[Episode 19] - Mean score over last 1 times: 78.63697853480234

epoch 19 start, epsilon: 0.37735360253530714 time: 2020-06-29 14:00:38.794474

부족분 점수: 34.018998901103295

추가분 점수: 0 기타 점수: 30.0

[Episode 20] - Mean score over last 1 times:64.01899890110329

epoch 20 start, epsilon: 0.35848592240854177 time: 2020-06-29 14:00:42.063631

부족분 점수: 32.777403832713325 추가분 점수: 11.393044048339167

기타 점수: 30.0

[Episode 21] - Mean score over last 1 times:74.1704478810525

epoch 21 start, epsilon: 0.34056162628811465 time: 2020-06-29 14:00:45.297305

부족분 점수: 31.13669451746699 추가분 점수: 1.9299845810383331

기타 점수: 30.0

[Episode 22] - Mean score over last 1 times:63.06667909850532

epoch 22 start, epsilon: 0.3235335449737089 time: 2020-06-29 14:00:48.653667

부족분 점수: 45.4227250119275

추가분 점수: 0 기타 점수: 30.0

[Episode 23] - Mean score over last 1 times:75.4227250119275

epoch 23 start, epsilon: 0.30735686772502346 time: 2020-06-29 14:00:51.979714

부족분 점수: 35.28316482252526 추가분 점수: 3.556416840983778

기타 점수: 30.0

[Episode 24] - Mean score over last 1 times:68.83958166350904

```
epoch 24 start, epsilon: 0.2919890243387723 time: 2020-06-29 14:00:55.293361
부족분 점수: 29.799304656747616
추가분 점수: 13.285695019143905
기타 점수: 30.0
[Episode 25] - Mean score over last 1 times:73.08499967589152
epoch 25 start, epsilon: 0.27738957312183365 time: 2020-06-29 14:00:58.612883
부족분 점수: 21.005556540340137
추가분 점수: 11.431261814214878
기타 점수: 30.0
[Episode 26] - Mean score over last 1 times:62.436818354555015
epoch 26 start, epsilon: 0.263520094465742 time: 2020-06-29 14:01:01.906935
부족분 점수: 20.58114339941562
추가분 점수: 15.76704618591907
기타 점수: 30.0
[Episode 27] - Mean score over last 1 times:66.3481895853347
epoch 27 start, epsilon: 0.25034408974245487 time: 2020-06-29 14:01:05.215320
부족분 점수: 18.677738785769826
추가분 점수: 14.59674177279043
기타 점수: 30.0
[Episode 28] - Mean score over last 1 times:63.274480558560256
epoch 28 start, epsilon: 0.2378268852553321 time: 2020-06-29 14:01:08.540162
부족분 점수: 45.67027937536462
추가분 점수: 0
기타 점수: 30.0
[Episode 29] - Mean score over last 1 times:75.67027937536463
epoch 29 start, epsilon: 0.2259355409925655 time: 2020-06-29 14:01:11.865396
부족분 점수: 41.28182599337713
추가분 점수: 2.7056766294438583
기타 점수: 30.0
[Episode 30] - Mean score over last 1 times:73.98750262282098
epoch 30 start, epsilon: 0.2146387639429372 time: 2020-06-29 14:01:15.189018
부족분 점수: 32.77495996261847
추가분 점수: 12.167728441947563
기타 점수: 30.0
[Episode 31] - Mean score over last 1 times:74.94268840456603
epoch 31 start, epsilon: 0.20390682574579033 time: 2020-06-29 14:01:18.483064
부족분 점수: 41.211680316600216
추가분 점수: 0
기타 점수: 30.0
[Episode 32] - Mean score over last 1 times:71.21168031660022
epoch 32 start, epsilon: 0.1937114844585008 time: 2020-06-29 14:01:21.841244
부족분 점수: 21.50478804995141
추가분 점수: 15.06372648562264
기타 점수: 30.0
[Episode 33] - Mean score over last 1 times:66.56851453557405
epoch 33 start, epsilon: 0.18402591023557577 time: 2020-06-29 14:01:25.171963
부족분 점수: 21.065799243828803
추가분 점수: 14.792119893716995
기타 점수: 30.0
[Episode 34] - Mean score over last 1 times:65.85791913754579
```

```
epoch 34 start, epsilon: 0.17482461472379698 time: 2020-06-29 14:01:28.459793
부족분 점수: 41.5648080248645
추가분 점수: 0
기타 점수: 30.0
[Episode 35] - Mean score over last 1 times:71.5648080248645
epoch 35 start, epsilon: 0.16608338398760714 time: 2020-06-29 14:01:31.788095
부족분 점수: 35.07898262502062
추가분 점수: 0
기타 점수: 30.0
[Episode 36] - Mean score over last 1 times:65.07898262502061
epoch 36 start, epsilon: 0.15777921478822676 time: 2020-06-29 14:01:35.123912
부족분 점수: 26.79872679129841
추가분 점수: 0
기타 점수: 30.0
[Episode 37] - Mean score over last 1 times:56.79872679129841
epoch 37 start, epsilon: 0.14989025404881542 time: 2020-06-29 14:01:38.470611
부족분 점수: 31.676587048625183
추가분 점수: 0
기타 점수: 30.0
[Episode 38] - Mean score over last 1 times:61.67658704862518
epoch 38 start, epsilon: 0.14239574134637464 time: 2020-06-29 14:01:41.829806
부족분 점수: 31.898762642918783
추가분 점수: 0
기타 점수: 30.0
[Episode 39] - Mean score over last 1 times:61.89876264291878
epoch 39 start, epsilon: 0.1352759542790559 time: 2020-06-29 14:01:45.154950
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 40] - Mean score over last 1 times:54.54576580689341
epoch 40 start, epsilon: 0.1285121565651031 time: 2020-06-29 14:01:48.525756
부족분 점수: 23.07113059789873
추가분 점수: 9.030707358306993
기타 점수: 30.0
[Episode 41] - Mean score over last 1 times:62.10183795620572
epoch 41 start, epsilon: 0.12208654873684793 time: 2020-06-29 14:01:51.867537
부족분 점수: 15.666737222983256
추가분 점수: 14.30896846562745
기타 점수: 30.0
[Episode 42] - Mean score over last 1 times:59.9757056886107
epoch 42 start, epsilon: 0.11598222130000553 time: 2020-06-29 14:01:55.218361
부족분 점수: 14.684952733924145
추가분 점수: 14.540295285865215
기타 점수: 30.0
[Episode 43] - Mean score over last 1 times:59.22524801978936
epoch 43 start, epsilon: 0.11018311023500525 time: 2020-06-29 14:01:58.605382
부족분 점수: 10.498142443679626
추가분 점수: 13.902674063917878
기타 점수: 30.0
[Episode 44] - Mean score over last 1 times:54.400816507597504
```

```
epoch 44 start, epsilon: 0.10467395472325498 time: 2020-06-29 14:02:01.961190
부족분 점수: 16.292114517509997
추가분 점수: 12.502524820411644
기타 점수: 30.0
[Episode 45] - Mean score over last 1 times:58.79463933792164
epoch 45 start, epsilon: 0.09944025698709223 time: 2020-06-29 14:02:05.310385
부족분 점수: 20.0698599697765
추가분 점수: 0
기타 점수: 30.0
[Episode 46] - Mean score over last 1 times:50.0698599697765
epoch 46 start, epsilon: 0.09446824413773762 time: 2020-06-29 14:02:08.784311
부족분 점수: 22.248173088059502
추가분 점수: 0
기타 점수: 30.0
[Episode 47] - Mean score over last 1 times:52.2481730880595
epoch 47 start, epsilon: 0.08974483193085074 time: 2020-06-29 14:02:12.144829
부족분 점수: 30.385079274476258
추가분 점수: 5.999021837538399
기타 점수: 30.0
[Episode 48] - Mean score over last 1 times:66.38410111201466
epoch 48 start, epsilon: 0.0852575903343082 time: 2020-06-29 14:02:15.508154
부족분 점수: 20.783192010772076
추가분 점수: 2.0047421217830697
기타 점수: 30.0
[Episode 49] - Mean score over last 1 times:52.78793413255515
epoch 49 start, epsilon: 0.08099471081759278 time: 2020-06-29 14:02:18.860251
부족분 점수: 19.536916570176547
추가분 점수: 8.179881127455122
기타 점수: 30.0
[Episode 50] - Mean score over last 1 times:57.71679769763167
epoch 50 start, epsilon: 0.07694497527671314 time: 2020-06-29 14:02:22.229833
부족분 점수: 19.4728383270104
추가분 점수: 8.393839419762877
기타 점수: 30.0
[Episode 51] - Mean score over last 1 times: 57.86667774677328
epoch 51 start, epsilon: 0.07309772651287748 time: 2020-06-29 14:02:25.571092
부족분 점수: 15.314520397790165
추가분 점수: 9.368632382031425
기타 점수: 30.0
[Episode 52] - Mean score over last 1 times:54.68315277982159
epoch 52 start, epsilon: 0.0694428401872336 time: 2020-06-29 14:02:28.915411
부족분 점수: 36.31351489347583
추가분 점수: 9.234280661967759
기타 점수: 30.0
[Episode 53] - Mean score over last 1 times:75.5477955554436
epoch 53 start, epsilon: 0.0659706981778719 time: 2020-06-29 14:02:32.246435
부족분 점수: 17.5647041872665
추가분 점수: 10.085513026856765
기타 점수: 30.0
[Episode 54] - Mean score over last 1 times:57.650217214123266
epoch 54 start, epsilon: 0.0626721632689783 time: 2020-06-29 14:02:35.631057
```

```
부족분 점수: 25.68253098308092
추가분 점수: 7.2408617537555875
기타 점수: 30.0
[Episode 55] - Mean score over last 1 times:62.923392736836504
epoch 55 start, epsilon: 0.059538555105529384 time: 2020-06-29 14:02:38.990019
부족분 점수: 23.027070277470653
추가분 점수: 7.069989920379911
기타 점수: 30.0
[Episode 56] - Mean score over last 1 times:60.09706019785057
epoch 56 start, epsilon: 0.05656162735025291 time: 2020-06-29 14:02:42.339864
부족분 점수: 19.72380888597925
추가분 점수: 12.523944243510844
기타 점수: 30.0
[Episode 57] - Mean score over last 1 times:62.24775312949009
epoch 57 start, epsilon: 0.053733545982740265 time: 2020-06-29 14:02:45.710315
부족분 점수: 15.881492115562029
추가분 점수: 11.874389070877761
기타 점수: 30.0
[Episode 58] - Mean score over last 1 times: 57.755881186439794
epoch 58 start, epsilon: 0.05104686868360325 time: 2020-06-29 14:02:49.067256
부족분 점수: 20.664665079200745
추가분 점수: 12.07655964533009
기타 점수: 30.0
[Episode 59] - Mean score over last 1 times:62.74122472453084
epoch 59 start, epsilon: 0.04849452524942309 time: 2020-06-29 14:02:52.444906
부족분 점수: 28.242777526717443
추가분 점수: 10.19981118761027
기타 점수: 30.0
[Episode 60] - Mean score over last 1 times:68.44258871432771
epoch 60 start, epsilon: 0.04606979898695193 time: 2020-06-29 14:02:55.819415
부족분 점수: 34.27255311154892
추가분 점수: 8.798979319421347
기타 점수: 30.0
[Episode 61] - Mean score over last 1 times:73.07153243097028
epoch 61 start, epsilon: 0.04376630903760433 time: 2020-06-29 14:02:59.189523
부족분 점수: 30.06223497219579
추가분 점수: 9.849200158644189
기타 점수: 30.0
[Episode 62] - Mean score over last 1 times:69.91143513083998
epoch 62 start, epsilon: 0.041577993585724116 time: 2020-06-29 14:03:02.539994
부족분 점수: 29.378825363285664
추가분 점수: 9.578063600835984
기타 점수: 30.0
[Episode 63] - Mean score over last 1 times:68.95688896412165
epoch 63 start, epsilon: 0.03949909390643791 time: 2020-06-29 14:03:05.919764
부족분 점수: 27.436867201235728
추가분 점수: 11.74313711816258
기타 점수: 30.0
[Episode 64] - Mean score over last 1 times:69.18000431939831
epoch 64 start, epsilon: 0.03752413921111601 time: 2020-06-29 14:03:09.297025
부족분 점수: 27.22285576128166
```

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추가분 점수: 12.105081191478067
기타 점수: 30.0
[Episode 65] - Mean score over last 1 times:69.32793695275973
epoch 65 start, epsilon: 0.03564793225056021 time: 2020-06-29 14:03:12.695203
부족분 점수: 27.120102621039155
추가분 점수: 11.164228377586687
기타 점수: 30.0
[Episode 66] - Mean score over last 1 times:68.28433099862585
epoch 66 start, epsilon: 0.0338655356380322 time: 2020-06-29 14:03:16.080906
부족분 점수: 29.075370735554205
추가분 점수: 9.453905169238388
기타 점수: 30.0
[Episode 67] - Mean score over last 1 times:68.5292759047926
epoch 67 start, epsilon: 0.032172258856130585 time: 2020-06-29 14:03:19.479669
부족분 점수: 33.85729641916965
추가분 점수: 9.577943173799255
기타 점수: 30.0
[Episode 68] - Mean score over last 1 times:73.43523959296891
epoch 68 start, epsilon: 0.030563645913324056 time: 2020-06-29 14:03:22.863240
부족분 점수: 31.49764383888214
추가분 점수: 0.7248828985313116
기타 점수: 30.0
[Episode 69] - Mean score over last 1 times:62.22252673741345
epoch 69 start, epsilon: 0.029035463617657853 time: 2020-06-29 14:03:26.223380
부족분 점수: 26.333393034831985
추가분 점수: 2.0136598667376537
기타 점수: 30.0
[Episode 70] - Mean score over last 1 times:58.34705290156964
epoch 70 start, epsilon: 0.027583690436774957 time: 2020-06-29 14:03:29.602818
부족분 점수: 26.299518322574265
추가분 점수: 2.1046941045742917
기타 점수: 30.0
[Episode 71] - Mean score over last 1 times:58.40421242714856
epoch 71 start, epsilon: 0.02620450591493621 time: 2020-06-29 14:03:33.070619
부족분 점수: 27.311884213090725
추가분 점수: 0
기타 점수: 30.0
[Episode 72] - Mean score over last 1 times:57.31188421309072
epoch 72 start, epsilon: 0.0248942806191894 time: 2020-06-29 14:03:36.440949
부족분 점수: 33.10413282856381
추가분 점수: 1.470707198556842
기타 점수: 30.0
[Episode 73] - Mean score over last 1 times:64.57484002712066
epoch 73 start, epsilon: 0.023649566588229927 time: 2020-06-29 14:03:39.880557
부족분 점수: 26.678633079402275
추가분 점수: 1.66207620512288
기타 점수: 30.0
[Episode 74] - Mean score over last 1 times:58.340709284525154
epoch 74 start, epsilon: 0.022467088258818428 time: 2020-06-29 14:03:43.301039
부족분 점수: 33.93147578725335
추가분 점수: 3.1605516664244804
```

```
기타 점수: 30.0
[Episode 75] - Mean score over last 1 times:67.09202745367783
epoch 75 start, epsilon: 0.021343733845877507 time: 2020-06-29 14:03:46.710373
부족분 점수: 37.73865366873901
추가분 점수: 2.5811919388845084
기타 점수: 30.0
[Episode 76] - Mean score over last 1 times:70.31984560762352
epoch 76 start, epsilon: 0.02027654715358363 time: 2020-06-29 14:03:50.540168
부족분 점수: 41.639205513346354
추가분 점수: 3.8362266031311654
기타 점수: 30.0
[Episode 77] - Mean score over last 1 times:75.47543211647752
epoch 77 start, epsilon: 0.019262719795904448 time: 2020-06-29 14:03:53.983630
부족분 점수: 39.53284601345035
추가분 점수: 0.8277687542836842
기타 점수: 30.0
[Episode 78] - Mean score over last 1 times:70.36061476773403
epoch 78 start, epsilon: 0.018299583806109226 time: 2020-06-29 14:03:57.338607
부족분 점수: 39.680747003993446
추가분 점수: 0
기타 점수: 30.0
[Episode 79] - Mean score over last 1 times:69.68074700399345
epoch 79 start, epsilon: 0.017384604615803764 time: 2020-06-29 14:04:00.753754
부족분 점수: 45.503151532541565
추가분 점수: 0
기타 점수: 30.0
[Episode 80] - Mean score over last 1 times:75.50315153254157
epoch 80 start, epsilon: 0.016515374385013576 time: 2020-06-29 14:04:04.149368
부족분 점수: 48.68663564032008
추가분 점수: 0
기타 점수: 30.0
[Episode 81] - Mean score over last 1 times: 78.68663564032008
epoch 81 start, epsilon: 0.015689605665762895 time: 2020-06-29 14:04:07.673216
부족분 점수: 47.151515030492305
추가분 점수: 0
기타 점수: 30.0
[Episode 82] - Mean score over last 1 times:77.1515150304923
epoch 82 start, epsilon: 0.01490512538247475 time: 2020-06-29 14:04:11.163749
부족분 점수: 26.765910423789503
추가분 점수: 0
기타 점수: 30.0
[Episode 83] - Mean score over last 1 times:56.76591042378951
epoch 83 start, epsilon: 0.014159869113351011 time: 2020-06-29 14:04:14.587162
부족분 점수: 26.00622626212603
추가분 점수: 1.7568393801325488
기타 점수: 30.0
[Episode 84] - Mean score over last 1 times:57.76306564225858
epoch 84 start, epsilon: 0.01345187565768346 time: 2020-06-29 14:04:17.989571
부족분 점수: 38.646690422333332
추가분 점수: 0
```

2020. 6. 29. Untitled - Jupyter Notebook 기타 점수: 30.0 [Episode 85] - Mean score over last 1 times:68.64669042233332 epoch 85 start, epsilon: 0.012779281874799287 time: 2020-06-29 14:04:21.926585 부족분 점수: 37.04430731873811 추가분 점수: 0 기타 점수: 30.0 [Episode 86] - Mean score over last 1 times:67.0443073187381 epoch 86 start, epsilon: 0.012140317781059323 time: 2020-06-29 14:04:25.566360 부족분 점수: 37.37381043739899 추가분 점수: 0 기타 점수: 30.0 [Episode 87] - Mean score over last 1 times:67.37381043739899 epoch 87 start, epsilon: 0.011533301892006355 time: 2020-06-29 14:04:28.953257 부족분 점수: 28.876388098245116 추가분 점수: 0 기타 점수: 30.0 [Episode 88] - Mean score over last 1 times:58.876388098245116 epoch 88 start, epsilon: 0.010956636797406038 time: 2020-06-29 14:04:32.323887 부족분 점수: 20.64081776102176 추가분 점수: 0 기타 점수: 30.0 [Episode 89] - Mean score over last 1 times:50.640817761021765 epoch 89 start, epsilon: 0.010408804957535735 time: 2020-06-29 14:04:35.666368 부족분 점수: 39.90736027314818 추가분 점수: 0 기타 점수: 30.0 [Episode 90] - Mean score over last 1 times:69.90736027314819 epoch 90 start, epsilon: 0.009888364709658948 time: 2020-06-29 14:04:39.061431 부족분 점수: 19.668263451346707 추가분 점수: 0 기타 점수: 30.0 [Episode 91] - Mean score over last 1 times:49.668263451346704 epoch 91 start, epsilon: 0.009393946474176 time: 2020-06-29 14:04:42.476456 부족분 점수: 19.400150472353545 추가분 점수: 0 기타 점수: 30.0 [Episode 92] - Mean score over last 1 times:49.400150472353545 epoch 92 start, epsilon: 0.0089242491504672 time: 2020-06-29 14:04:45.865835 부족분 점수: 41.37475142722935 추가분 점수: 0 기타 점수: 30.0 [Episode 93] - Mean score over last 1 times:71.37475142722934 epoch 93 start, epsilon: 0.008478036692943839 time: 2020-06-29 14:04:49.264343 부족분 점수: 36.45144532412845 추가분 점수: 0 기타 점수: 30.0 [Episode 94] - Mean score over last 1 times:66.45144532412846 epoch 94 start, epsilon: 0.008054134858296647 time: 2020-06-29 14:04:52.669646 부족분 점수: 40.58485298224346 추가분 점수: 0

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기타 점수: 30.0

2020. 6. 29. Untitled - Jupyter Notebook [Episode 95] - Mean score over last 1 times:70.58485298224346 epoch 95 start, epsilon: 0.0076514281153818135 time: 2020-06-29 14:04:56.028705 부족분 점수: 39.62768537699346 추가분 점수: 0 기타 점수: 30.0 [Episode 96] - Mean score over last 1 times:69.62768537699347 epoch 96 start, epsilon: 0.0072688567096127225 time: 2020-06-29 14:04:59.391801 부족분 점수: 21.255368910715948 추가분 점수: 0 기타 점수: 30.0 [Episode 97] - Mean score over last 1 times:51.255368910715944 epoch 97 start, epsilon: 0.006905413874132086 time: 2020-06-29 14:05:02.755367 부족분 점수: 38.0206003963647 추가분 점수: 0 기타 점수: 30.0 [Episode 98] - Mean score over last 1 times:68.0206003963647 epoch 98 start, epsilon: 0.006560143180425482 time: 2020-06-29 14:05:06.055966 부족분 점수: 36.25092969979568 추가분 점수: 0 기타 점수: 30.0 [Episode 99] - Mean score over last 1 times:66.25092969979568 epoch 99 start, epsilon: 0.0062321360214042075 time: 2020-06-29 14:05:09.453005 부족분 점수: 26.429660933377118 추가분 점수: 0 기타 점수: 30.0 [Episode 100] - Mean score over last 1 times:56.42966093337712 epoch 100 start, epsilon: 0.005920529220333997 time: 2020-06-29 14:05:12.791207 부족분 점수: 31.702546448124362 추가분 점수: 0 기타 점수: 30.0 [Episode 101] - Mean score over last 1 times:61.702546448124366 epoch 101 start, epsilon: 0.0056245027593172965 time: 2020-06-29 14:05:16.194548 부족분 점수: 31.392893821755084 추가분 점수: 0 기타 점수: 30.0 [Episode 102] - Mean score over last 1 times:61.39289382175508 epoch 102 start, epsilon: 0.005343277621351432 time: 2020-06-29 14:05:19.621667 부족분 점수: 24.194980588820624 추가분 점수: 0 기타 점수: 30.0 [Episode 103] - Mean score over last 1 times:54.19498058882063 epoch 103 start, epsilon: 0.0050761137402838595 time: 2020-06-29 14:05:22.996815 부족분 점수: 34.20769301427951 추가분 점수: 0 기타 점수: 30.0 [Episode 104] - Mean score over last 1 times:64.20769301427951 epoch 104 start, epsilon: 0.004822308053269666 time: 2020-06-29 14:05:26.374148 부족분 점수: 24.86390976819946 추가분 점수: 0 기타 점수: 30.0

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[Episode 105] - Mean score over last 1 times:54.86390976819946

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epoch 105 start, epsilon: 0.004581192650606183 time: 2020-06-29 14:05:29.817731
부족분 점수: 27.238726324336426
추가분 점수: 0
기타 점수: 30.0
[Episode 106] - Mean score over last 1 times:57.238726324336426
epoch 106 start, epsilon: 0.0043521330180758735 time: 2020-06-29 14:05:33.190303
부족분 점수: 27.52747318578359
추가분 점수: 0
기타 점수: 30.0
[Episode 107] - Mean score over last 1 times:57.52747318578359
epoch 107 start, epsilon: 0.0041345263671720795 time: 2020-06-29 14:05:36.555367
부족분 점수: 27.55370293169176
추가분 점수: 0
기타 점수: 30.0
[Episode 108] - Mean score over last 1 times:57.55370293169176
epoch 108 start, epsilon: 0.003927800048813475 time: 2020-06-29 14:05:39.894243
부족분 점수: 27.74791456930591
추가분 점수: 0
기타 점수: 30.0
[Episode 109] - Mean score over last 1 times:57.747914569305905
epoch 109 start, epsilon: 0.0037314100463728015 time: 2020-06-29 14:05:43.287809
부족분 점수: 27.622879355150086
추가분 점수: 0
기타 점수: 30.0
[Episode 110] - Mean score over last 1 times:57.62287935515009
epoch 110 start, epsilon: 0.0035448395440541612 time: 2020-06-29 14:05:46.663598
부족분 점수: 27.55376898223486
추가분 점수: 0
기타 점수: 30.0
[Episode 111] - Mean score over last 1 times:57.55376898223486
epoch 111 start, epsilon: 0.003367597566851453 time: 2020-06-29 14:05:50.074929
부족분 점수: 26.82853555500735
추가분 점수: 0
기타 점수: 30.0
[Episode 112] - Mean score over last 1 times:56.82853555500735
epoch 112 start, epsilon: 0.00319921768850888 time: 2020-06-29 14:05:53.454799
부족분 점수: 26.630746435651563
추가분 점수: 0
기타 점수: 30.0
[Episode 113] - Mean score over last 1 times:56.63074643565156
epoch 113 start, epsilon: 0.003039256804083436 time: 2020-06-29 14:05:56.783498
부족분 점수: 26.47842620295704
추가분 점수: 0
기타 점수: 30.0
[Episode 114] - Mean score over last 1 times:56.47842620295704
epoch 114 start, epsilon: 0.0028872939638792637 time: 2020-06-29 14:06:00.183725
부족분 점수: 27.117912200702715
추가분 점수: 0
기타 점수: 30.0
[Episode 115] - Mean score over last 1 times:57.11791220070272
```

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epoch 115 start, epsilon: 0.0027429292656853004 time: 2020-06-29 14:06:03.572008
부족분 점수: 25.786798677637407
추가분 점수: 4.065294802006585
기타 점수: 30.0
[Episode 116] - Mean score over last 1 times:59.85209347964399
epoch 116 start, epsilon: 0.0026057828024010354 time: 2020-06-29 14:06:07.048213
부족분 점수: 23.803483659249242
추가분 점수: 8.673042131337358
기타 점수: 30.0
[Episode 117] - Mean score over last 1 times:62.4765257905866
epoch 117 start, epsilon: 0.0024754936622809836 time: 2020-06-29 14:06:10.452400
부족분 점수: 22.868287843965884
추가분 점수: 9.739368243451857
기타 점수: 30.0
[Episode 118] - Mean score over last 1 times:62.60765608741774
epoch 118 start, epsilon: 0.002351718979166934 time: 2020-06-29 14:06:13.827695
부족분 점수: 25.667362399054035
추가분 점수: 9.436497318194343
기타 점수: 30.0
[Episode 119] - Mean score over last 1 times:65.10385971724838
epoch 119 start, epsilon: 0.0022341330302085875 time: 2020-06-29 14:06:17.221135
부족분 점수: 21.359168107234133
추가분 점수: 5.8397662978179055
기타 점수: 30.0
[Episode 120] - Mean score over last 1 times:57.19893440505204
epoch 120 start, epsilon: 0.002122426378698158 time: 2020-06-29 14:06:20.608252
부족분 점수: 23.044627433463294
추가분 점수: 4.384757009268274
기타 점수: 30.0
[Episode 121] - Mean score over last 1 times:57.42938444273157
epoch 121 start, epsilon: 0.0020163050597632503 time: 2020-06-29 14:06:23.984425
부족분 점수: 23.02668626268516
추가분 점수: 2.37759958809038
기타 점수: 30.0
[Episode 122] - Mean score over last 1 times:55.40428585077554
epoch 122 start, epsilon: 0.0019154898067750877 time: 2020-06-29 14:06:27.348377
부족분 점수: 23.54867295242548
추가분 점수: 1.6954854914605866
기타 점수: 30.0
[Episode 123] - Mean score over last 1 times:55.244158443886064
epoch 123 start, epsilon: 0.0018197153164363333 time: 2020-06-29 14:06:30.735884
부족분 점수: 24.63620589705393
추가분 점수: 0
기타 점수: 30.0
[Episode 124] - Mean score over last 1 times:54.63620589705393
epoch 124 start, epsilon: 0.0017287295506145165 time: 2020-06-29 14:06:34.122725
부족분 점수: 24.40113969444097
추가분 점수: 0
기타 점수: 30.0
[Episode 125] - Mean score over last 1 times:54.40113969444097
```

```
epoch 125 start, epsilon: 0.0016422930730837905 time: 2020-06-29 14:06:37.538368
부족분 점수: 24.858714816181337
추가분 점수: 0
기타 점수: 30.0
[Episode 126] - Mean score over last 1 times:54.85871481618133
epoch 126 start, epsilon: 0.0015601784194296008 time: 2020-06-29 14:06:40.914313
부족분 점수: 24.933602307529483
추가분 점수: 0
기타 점수: 30.0
[Episode 127] - Mean score over last 1 times:54.93360230752948
epoch 127 start, epsilon: 0.0014821694984581207 time: 2020-06-29 14:06:44.329834
부족분 점수: 24.933147634023463
추가분 점수: 0
기타 점수: 30.0
[Episode 128] - Mean score over last 1 times:54.93314763402346
epoch 128 start, epsilon: 0.0014080610235352145 time: 2020-06-29 14:06:47.729768
부족분 점수: 24.933147634023463
추가분 점수: 0
기타 점수: 30.0
[Episode 129] - Mean score over last 1 times:54.93314763402346
epoch 129 start, epsilon: 0.0013376579723584536 time: 2020-06-29 14:06:51.119852
부족분 점수: 25.88524931622327
추가분 점수: 0
기타 점수: 30.0
[Episode 130] - Mean score over last 1 times:55.885249316223266
epoch 130 start, epsilon: 0.0012707750737405309 time: 2020-06-29 14:06:54.521361
부족분 점수: 26.159428192768054
추가분 점수: 0
기타 점수: 30.0
[Episode 131] - Mean score over last 1 times: 56.159428192768054
epoch 131 start, epsilon: 0.0012072363200535043 time: 2020-06-29 14:06:57.951001
부족분 점수: 35.29432890036905
추가분 점수: 0
기타 점수: 30.0
[Episode 132] - Mean score over last 1 times:65.29432890036905
epoch 132 start, epsilon: 0.001146874504050829 time: 2020-06-29 14:07:01.345636
부족분 점수: 35.33498224162026
추가분 점수: 0
기타 점수: 30.0
[Episode 133] - Mean score over last 1 times:65.33498224162025
epoch 133 start, epsilon: 0.0010895307788482875 time: 2020-06-29 14:07:04.772730
부족분 점수: 35.30815650476501
추가분 점수: 0
기타 점수: 30.0
[Episode 134] - Mean score over last 1 times:65.30815650476501
epoch 134 start, epsilon: 0.001035054239905873 time: 2020-06-29 14:07:08.181025
부족분 점수: 35.37726994979852
추가분 점수: 0
기타 점수: 30.0
[Episode 135] - Mean score over last 1 times:65.37726994979852
epoch 135 start, epsilon: 0.001 time: 2020-06-29 14:07:11.601989
```

localhost:8888/notebooks/competitions-master/process_optimization/DQN/process_optimization/Untitled.ipynb

```
부족분 점수: 35.192669434235626
추가분 점수: 0
기타 점수: 30.0
[Episode 136] - Mean score over last 1 times:65.19266943423563
epoch 136 start, epsilon: 0.001 time: 2020-06-29 14:07:15.015295
부족분 점수: 35.192669434235626
추가분 점수: 0
기타 점수: 30.0
[Episode 137] - Mean score over last 1 times:65.19266943423563
epoch 137 start, epsilon: 0.001 time: 2020-06-29 14:07:18.430194
부족분 점수: 38.104877817247676
추가분 점수: 0
기타 점수: 30.0
[Episode 138] - Mean score over last 1 times:68.10487781724768
epoch 138 start, epsilon: 0.001 time: 2020-06-29 14:07:21.814399
부족분 점수: 38.0193961259974
추가분 점수: 0
기타 점수: 30.0
[Episode 139] - Mean score over last 1 times:68.0193961259974
epoch 139 start. epsilon: 0.001 time: 2020-06-29 14:07:25.201725
부족분 점수: 38.03576437221417
추가분 점수: 0
기타 점수: 30.0
[Episode 140] - Mean score over last 1 times:68.03576437221417
epoch 140 start, epsilon: 0.001 time: 2020-06-29 14:07:28.617735
부족분 점수: 35.09445995693504
추가분 점수: 0
기타 점수: 30.0
[Episode 141] - Mean score over last 1 times:65.09445995693504
epoch 141 start, epsilon: 0.001 time: 2020-06-29 14:07:32.005029
부족분 점수: 37.9807488779856
추가분 점수: 0
기타 점수: 30.0
[Episode 142] - Mean score over last 1 times:67.9807488779856
epoch 142 start, epsilon: 0.001 time: 2020-06-29 14:07:35.428845
부족분 점수: 37.63154733688818
추가분 점수: 0
기타 점수: 30.0
[Episode 143] - Mean score over last 1 times:67.63154733688819
epoch 143 start, epsilon: 0.001 time: 2020-06-29 14:07:38.844376
부족분 점수: 37.15752409385567
추가분 점수: 0
기타 점수: 30.0
[Episode 144] - Mean score over last 1 times:67.15752409385567
epoch 144 start, epsilon: 0.001 time: 2020-06-29 14:07:42.239129
부족분 점수: 37.149339970747285
추가분 점수: 0
기타 점수: 30.0
[Episode 145] - Mean score over last 1 times:67.14933997074729
epoch 145 start, epsilon: 0.001 time: 2020-06-29 14:07:45.612825
부족분 점수: 37.149339970747285
```

2020. 6. 29. Untitled - Jupyter Notebook 추가분 점수: 0 기타 점수: 30.0 [Episode 146] - Mean score over last 1 times:67.14933997074729 epoch 146 start, epsilon: 0.001 time: 2020-06-29 14:07:49.005908 부족분 점수: 36.454832334536476 추가분 점수: 0 기타 점수: 30.0 [Episode 147] - Mean score over last 1 times:66.45483233453648 epoch 147 start, epsilon: 0.001 time: 2020-06-29 14:07:52.432516 부족분 점수: 36.454832334536476 추가분 점수: 0 기타 점수: 30.0 [Episode 148] - Mean score over last 1 times:66.45483233453648 epoch 148 start, epsilon: 0.001 time: 2020-06-29 14:07:55.886287 부족분 점수: 36.454832334536476 추가분 점수: 0 기타 점수: 30.0 [Episode 149] - Mean score over last 1 times:66.45483233453648 epoch 149 start, epsilon: 0.001 time: 2020-06-29 14:07:59.297759 부족분 점수: 36.454832334536476 추가분 점수: 0 기타 점수: 30.0 [Episode 150] - Mean score over last 1 times:66.45483233453648 epoch 150 start, epsilon: 0.001 time: 2020-06-29 14:08:02.688403 부족분 점수: 36.454832334536476 추가분 점수: 0 기타 점수: 30.0 [Episode 151] - Mean score over last 1 times:66.45483233453648 epoch 151 start. epsilon: 0.001 time: 2020-06-29 14:08:06.095734 부족분 점수: 36.41395626470969 추가분 점수: 1.0139913483004892 기타 점수: 30.0 [Episode 152] - Mean score over last 1 times:67.42794761301018 epoch 152 start, epsilon: 0.001 time: 2020-06-29 14:08:09.536926 부족분 점수: 36.09140842184362 추가분 점수: 3.431448599006539 기타 점수: 30.0 [Episode 153] - Mean score over last 1 times:69.52285702085015 epoch 153 start, epsilon: 0.001 time: 2020-06-29 14:08:12.921693 부족분 점수: 36.571417687352366 추가분 점수: 2.9811276701700073 기타 점수: 30.0 [Episode 154] - Mean score over last 1 times:69.55254535752238 epoch 154 start, epsilon: 0.001 time: 2020-06-29 14:08:16.344271 부족분 점수: 35.32860606012197 추가분 점수: 5.832106278088762 기타 점수: 30.0 [Episode 155] - Mean score over last 1 times:71.16071233821073

부족분 점수: 35.25186608144861 추가분 점수: 7.771890916452822

epoch 155 start, epsilon: 0.001 time: 2020-06-29 14:08:19.755911

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2020. 6. 29.
                                             Untitled - Jupyter Notebook
  기타 점수: 30.0
  [Episode 156] - Mean score over last 1 times:73.02375699790143
  epoch 156 start, epsilon: 0.001 time: 2020-06-29 14:08:23.115368
  부족분 점수: 34.426939343789385
  추가분 점수: 8.744530938227996
  기타 점수: 30.0
  [Episode 157] - Mean score over last 1 times:73.17147028201738
  epoch 157 start, epsilon: 0.001 time: 2020-06-29 14:08:26.539603
  부족분 점수: 34.50904477704563
  추가분 점수: 9.291587342012477
  기타 점수: 30.0
  [Episode 158] - Mean score over last 1 times:73.80063211905811
  epoch 158 start, epsilon: 0.001 time: 2020-06-29 14:08:29.880079
  부족분 점수: 34.35946948203779
  추가분 점수: 9.832416562035437
  기타 점수: 30.0
  [Episode 159] - Mean score over last 1 times:74.19188604407323
  epoch 159 start. epsilon: 0.001 time: 2020-06-29 14:08:33.324550
  부족분 점수: 34.19516184379937
  추가분 점수: 10.469879877102981
  기타 점수: 30.0
  [Episode 160] - Mean score over last 1 times:74.66504172090235
  epoch 160 start, epsilon: 0.001 time: 2020-06-29 14:08:36.724597
  부족분 점수: 34.23635894998684
  추가분 점수: 10.358786550143268
  기타 점수: 30.0
  [Episode 161] - Mean score over last 1 times:74.5951455001301
  epoch 161 start, epsilon: 0.001 time: 2020-06-29 14:08:40.138728
  부족분 점수: 34.288137967603284
  추가분 점수: 10.272417631132601
  기타 점수: 30.0
  [Episode 162] - Mean score over last 1 times:74.56055559873589
  epoch 162 start, epsilon: 0.001 time: 2020-06-29 14:08:43.556117
  부족분 점수: 35.51198387260786
```

추가분 점수: 8.363950780978548

기타 점수: 30.0

[Episode 163] - Mean score over last 1 times:73.8759346535864

epoch 163 start, epsilon: 0.001 time: 2020-06-29 14:08:46.932506 부족분 점수: 37.552134615307814 추가분 점수: 6.626744079951264 기타 점수: 30.0 [Episode 164] - Mean score over last 1 times:74.17887869525907 epoch 164 start, epsilon: 0.001 time: 2020-06-29 14:08:50.291579 부족분 점수: 37.81924147556299 추가분 점수: 3.2978507767697485 기타 점수: 30.0 [Episode 165] - Mean score over last 1 times:71.11709225233274

epoch 165 start, epsilon: 0.001 time: 2020-06-29 14:08:53.684174

부족분 점수: 37.81924147556299 추가분 점수: 0.0655172233703416 기타 점수: 30.0 [Episode 166] - Mean score over last 1 times:67.88475869893333 epoch 166 start, epsilon: 0.001 time: 2020-06-29 14:08:57.083516 부족분 점수: 37.81924147556299 추가분 점수: 0 기타 점수: 30.0 [Episode 167] - Mean score over last 1 times:67.81924147556299 epoch 167 start, epsilon: 0.001 time: 2020-06-29 14:09:00.461016 부족분 점수: 37.81878680205697 추가분 점수: 0 기타 점수: 30.0 [Episode 168] - Mean score over last 1 times:67.81878680205696 epoch 168 start, epsilon: 0.001 time: 2020-06-29 14:09:03.877106 부족분 점수: 37.81924147556299 추가분 점수: 0 기타 점수: 30.0 [Episode 169] - Mean score over last 1 times:67.81924147556299 epoch 169 start. epsilon: 0.001 time: 2020-06-29 14:09:07.268648 부족분 점수: 37.81924147556299 추가분 점수: 0 기타 점수: 30.0 [Episode 170] - Mean score over last 1 times:67.81924147556299 epoch 170 start, epsilon: 0.001 time: 2020-06-29 14:09:10.657735 부족분 점수: 37.71924402542116 추가분 점수: 0 기타 점수: 30.0 [Episode 171] - Mean score over last 1 times:67.71924402542116 epoch 171 start, epsilon: 0.001 time: 2020-06-29 14:09:14.061188 부족분 점수: 37.71924402542116 추가분 점수: 0 기타 점수: 30.0 [Episode 172] - Mean score over last 1 times:67.71924402542116 epoch 172 start, epsilon: 0.001 time: 2020-06-29 14:09:17.439437 부족분 점수: 37.71924402542116 추가분 점수: 0 기타 점수: 30.0 [Episode 173] - Mean score over last 1 times:67.71924402542116 epoch 173 start, epsilon: 0.001 time: 2020-06-29 14:09:20.842449 부족분 점수: 37.71924402542116 추가분 점수: 0 기타 점수: 30.0 [Episode 174] - Mean score over last 1 times:67.71924402542116 epoch 174 start, epsilon: 0.001 time: 2020-06-29 14:09:24.262666 부족분 점수: 37.45254575689775 추가분 점수: 0 기타 점수: 30.0 [Episode 175] - Mean score over last 1 times:67.45254575689775 epoch 175 start, epsilon: 0.001 time: 2020-06-29 14:09:27.605647 부족분 점수: 37.220857348337965 추가분 점수: 0 기타 점수: 30.0

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[Episode 176] - Mean score over last 1 times:67.22085734833797
epoch 176 start, epsilon: 0.001 time: 2020-06-29 14:09:31.017803
부족분 점수: 36.90949816026197
추가분 점수: 0
기타 점수: 30.0
[Episode 177] - Mean score over last 1 times:66.90949816026196
epoch 177 start, epsilon: 0.001 time: 2020-06-29 14:09:34.425759
부족분 점수: 36.24651813793995
추가분 점수: 0
기타 점수: 30.0
[Episode 178] - Mean score over last 1 times:66.24651813793994
epoch 178 start, epsilon: 0.001 time: 2020-06-29 14:09:37.814029
부족분 점수: 36.474572230569855
추가분 점수: 0
기타 점수: 30.0
[Episode 179] - Mean score over last 1 times:66.47457223056986
epoch 179 start, epsilon: 0.001 time: 2020-06-29 14:09:41.205337
부족분 점수: 36.474572230569855
추가분 점수: 0
기타 점수: 30.0
[Episode 180] - Mean score over last 1 times:66.47457223056986
epoch 180 start, epsilon: 0.001 time: 2020-06-29 14:09:44.616824
부족분 점수: 36.474572230569855
추가분 점수: 0
기타 점수: 30.0
[Episode 181] - Mean score over last 1 times:66.47457223056986
epoch 181 start, epsilon: 0.001 time: 2020-06-29 14:09:48.038185
부족분 점수: 35.80528054123351
추가분 점수: 0
기타 점수: 30.0
[Episode 182] - Mean score over last 1 times:65.80528054123351
epoch 182 start, epsilon: 0.001 time: 2020-06-29 14:09:51.445760
부족분 점수: 35.80528054123351
추가분 점수: 0
기타 점수: 30.0
[Episode 183] - Mean score over last 1 times:65.80528054123351
epoch 183 start, epsilon: 0.001 time: 2020-06-29 14:09:54.881119
부족분 점수: 39.59682287671313
추가분 점수: 0
기타 점수: 30.0
[Episode 184] - Mean score over last 1 times:69.59682287671313
epoch 184 start, epsilon: 0.001 time: 2020-06-29 14:09:58.263810
부족분 점수: 37.44780701444479
추가분 점수: 0
기타 점수: 30.0
[Episode 185] - Mean score over last 1 times:67.44780701444479
epoch 185 start, epsilon: 0.001 time: 2020-06-29 14:10:01.685022
부족분 점수: 36.13865299287299
추가분 점수: 1.6064745507257427
기타 점수: 30.0
[Episode 186] - Mean score over last 1 times:67.74512754359873
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epoch 186 start, epsilon: 0.001 time: 2020-06-29 14:10:05.216387
부족분 점수: 34.860644106463646
추가분 점수: 5.995773994088629
기타 점수: 30.0
[Episode 187] - Mean score over last 1 times:70.85641810055228
epoch 187 start, epsilon: 0.001 time: 2020-06-29 14:10:08.725907
부족분 점수: 33.79361140714384
추가분 점수: 6.659774881316391
기타 점수: 30.0
[Episode 188] - Mean score over last 1 times:70.45338628846024
epoch 188 start, epsilon: 0.001 time: 2020-06-29 14:10:12.183069
부족분 점수: 33.71696051990072
추가분 점수: 5.506145311809254
기타 점수: 30.0
[Episode 189] - Mean score over last 1 times:69.22310583170997
epoch 189 start, epsilon: 0.001 time: 2020-06-29 14:10:15.587144
부족분 점수: 33.712413784840514
추가분 점수: 8.206989499192494
기타 점수: 30.0
[Episode 190] - Mean score over last 1 times:71.91940328403301
epoch 190 start, epsilon: 0.001 time: 2020-06-29 14:10:19.009403
부족분 점수: 33.56790287682372
추가분 점수: 10.528930905909313
기타 점수: 30.0
[Episode 191] - Mean score over last 1 times:74.09683378273303
epoch 191 start, epsilon: 0.001 time: 2020-06-29 14:10:22.431766
부족분 점수: 33.16375189204085
추가분 점수: 10.685215092825588
기타 점수: 30.0
[Episode 192] - Mean score over last 1 times:73.84896698486644
epoch 192 start, epsilon: 0.001 time: 2020-06-29 14:10:25.820825
부족분 점수: 33.18211701514217
추가분 점수: 10.691590352688394
기타 점수: 30.0
[Episode 193] - Mean score over last 1 times:73.87370736783056
epoch 193 start, epsilon: 0.001 time: 2020-06-29 14:10:29.233493
부족분 점수: 33.16300843941614
추가분 점수: 10.649104185668998
기타 점수: 30.0
[Episode 194] - Mean score over last 1 times:73.81211262508513
epoch 194 start, epsilon: 0.001 time: 2020-06-29 14:10:32.657731
부족분 점수: 32.66846651836528
추가분 점수: 7.288539186251164
기타 점수: 30.0
[Episode 195] - Mean score over last 1 times:69.95700570461645
epoch 195 start, epsilon: 0.001 time: 2020-06-29 14:10:36.085128
부족분 점수: 32.583049341598965
추가분 점수: 5.532975964053759
기타 점수: 30.0
[Episode 196] - Mean score over last 1 times:68.11602530565273
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epoch 196 start, epsilon: 0.001 time: 2020-06-29 14:10:39.505894
부족분 점수: 34.80947029614913
추가분 점수: 5.412969193105061
기타 점수: 30.0
[Episode 197] - Mean score over last 1 times:70.22243948925419
epoch 197 start, epsilon: 0.001 time: 2020-06-29 14:10:42.936394
부족분 점수: 35.313136408503254
추가분 점수: 0.4245790353118495
기타 점수: 30.0
[Episode 198] - Mean score over last 1 times:65.7377154438151
epoch 198 start, epsilon: 0.001 time: 2020-06-29 14:10:46.290811
부족분 점수: 37.70892631616459
추가분 점수: 0
기타 점수: 30.0
[Episode 199] - Mean score over last 1 times:67.7089263161646
epoch 199 start, epsilon: 0.001 time: 2020-06-29 14:10:49.742848
부족분 점수: 36.56451310150924
추가분 점수: 0
기타 점수: 30.0
[Episode 200] - Mean score over last 1 times:66.56451310150925
epoch 200 start, epsilon: 0.001 time: 2020-06-29 14:10:53.171452
부족분 점수: 38.67747611965655
추가분 점수: 0
기타 점수: 30.0
[Episode 201] - Mean score over last 1 times:68.67747611965655
epoch 201 start, epsilon: 0.001 time: 2020-06-29 14:10:56.650220
부족분 점수: 38.67747611965655
추가분 점수: 0
기타 점수: 30.0
[Episode 202] - Mean score over last 1 times:68.67747611965655
epoch 202 start, epsilon: 0.001 time: 2020-06-29 14:11:00.041061
부족분 점수: 38.67747611965655
추가분 점수: 0
기타 점수: 30.0
[Episode 203] - Mean score over last 1 times:68.67747611965655
epoch 203 start, epsilon: 0.001 time: 2020-06-29 14:11:03.469157
부족분 점수: 41.83394862742363
추가분 점수: 0
기타 점수: 30.0
[Episode 204] - Mean score over last 1 times:71.83394862742364
epoch 204 start, epsilon: 0.001 time: 2020-06-29 14:11:06.895547
부족분 점수: 42.00767998849799
추가분 점수: 0
기타 점수: 30.0
[Episode 205] - Mean score over last 1 times:72.00767998849798
epoch 205 start, epsilon: 0.001 time: 2020-06-29 14:11:10.326018
부족분 점수: 42.0471659248013
추가분 점수: 0
기타 점수: 30.0
[Episode 206] - Mean score over last 1 times:72.0471659248013
epoch 206 start, epsilon: 0.001 time: 2020-06-29 14:11:13.762796
```

```
부족분 점수: 44.943843213828956
추가분 점수: 0
기타 점수: 30.0
[Episode 207] - Mean score over last 1 times:74.94384321382896
epoch 207 start, epsilon: 0.001 time: 2020-06-29 14:11:17.169629
부족분 점수: 21.66670711622407
추가분 점수: 0
기타 점수: 30.0
[Episode 208] - Mean score over last 1 times:51.666707116224075
epoch 208 start, epsilon: 0.001 time: 2020-06-29 14:11:20.625337
부족분 점수: 45.007016718160486
추가분 점수: 0
기타 점수: 30.0
[Episode 209] - Mean score over last 1 times:75.00701671816049
epoch 209 start, epsilon: 0.001 time: 2020-06-29 14:11:24.039585
부족분 점수: 45.007016718160486
추가분 점수: 0
기타 점수: 30.0
[Episode 210] - Mean score over last 1 times:75.00701671816049
epoch 210 start, epsilon: 0.001 time: 2020-06-29 14:11:27.451732
부족분 점수: 45.007016718160486
추가분 점수: 0
기타 점수: 30.0
[Episode 211] - Mean score over last 1 times:75.00701671816049
epoch 211 start, epsilon: 0.001 time: 2020-06-29 14:11:30.861848
부족분 점수: 44.666718175849894
추가분 점수: 0
기타 점수: 30.0
[Episode 212] - Mean score over last 1 times:74.6667181758499
epoch 212 start, epsilon: 0.001 time: 2020-06-29 14:11:34.289095
부족분 점수: 43.80454200399805
추가분 점수: 0
기타 점수: 30.0
[Episode 213] - Mean score over last 1 times:73.80454200399805
epoch 213 start, epsilon: 0.001 time: 2020-06-29 14:11:37.718423
부족분 점수: 44.41158182448804
추가분 점수: 0
기타 점수: 30.0
[Episode 214] - Mean score over last 1 times:74.41158182448804
epoch 214 start, epsilon: 0.001 time: 2020-06-29 14:11:41.128159
부족분 점수: 44.37338924998226
추가분 점수: 0
기타 점수: 30.0
[Episode 215] - Mean score over last 1 times:74.37338924998227
epoch 215 start, epsilon: 0.001 time: 2020-06-29 14:11:44.541096
부족분 점수: 38.615474628450336
추가분 점수: 0
기타 점수: 30.0
[Episode 216] - Mean score over last 1 times:68.61547462845033
epoch 216 start, epsilon: 0.001 time: 2020-06-29 14:11:48.028033
```

```
부족분 점수: 38.615474628450336
추가분 점수: 0
기타 점수: 30.0
[Episode 217] - Mean score over last 1 times:68.61547462845033
epoch 217 start, epsilon: 0.001 time: 2020-06-29 14:11:51.461700
부족분 점수: 38.615474628450336
추가분 점수: 0
기타 점수: 30.0
[Episode 218] - Mean score over last 1 times:68.61547462845033
epoch 218 start, epsilon: 0.001 time: 2020-06-29 14:11:54.922603
부족분 점수: 38.57509777784468
추가분 점수: 0
기타 점수: 30.0
[Episode 219] - Mean score over last 1 times:68.57509777784469
epoch 219 start, epsilon: 0.001 time: 2020-06-29 14:11:58.407799
부족분 점수: 38.5226075648455
추가분 점수: 0
기타 점수: 30.0
[Episode 220] - Mean score over last 1 times:68.5226075648455
epoch 220 start. epsilon: 0.001 time: 2020-06-29 14:12:01.837458
부족분 점수: 38.615474628450336
추가분 점수: 0
기타 점수: 30.0
[Episode 221] - Mean score over last 1 times:68.61547462845033
epoch 221 start, epsilon: 0.001 time: 2020-06-29 14:12:05.245719
부족분 점수: 38.615474628450336
추가분 점수: 0
기타 점수: 30.0
[Episode 222] - Mean score over last 1 times:68.61547462845033
epoch 222 start, epsilon: 0.001 time: 2020-06-29 14:12:08.745778
부족분 점수: 38.615474628450336
추가분 점수: 0
기타 점수: 30.0
[Episode 223] - Mean score over last 1 times:68.61547462845033
epoch 223 start, epsilon: 0.001 time: 2020-06-29 14:12:12.206227
부족분 점수: 38.61365593442625
추가분 점수: 0
기타 점수: 30.0
[Episode 224] - Mean score over last 1 times:68.61365593442625
epoch 224 start, epsilon: 0.001 time: 2020-06-29 14:12:15.627070
부족분 점수: 38.615474628450336
추가분 점수: 0
기타 점수: 30.0
[Episode 225] - Mean score over last 1 times:68.61547462845033
epoch 225 start, epsilon: 0.001 time: 2020-06-29 14:12:19.063676
부족분 점수: 38.615474628450336
추가분 점수: 0
기타 점수: 30.0
[Episode 226] - Mean score over last 1 times:68.61547462845033
epoch 226 start, epsilon: 0.001 time: 2020-06-29 14:12:22.495875
부족분 점수: 38.5118090690775
```

2020. 6. 29. Untitled - Jupyter Notebook 추가분 점수: 0 기타 점수: 30.0 [Episode 227] - Mean score over last 1 times:68.5118090690775 epoch 227 start, epsilon: 0.001 time: 2020-06-29 14:12:25.921455 부족분 점수: 38.53636143840264 추가분 점수: 0 기타 점수: 30.0 [Episode 228] - Mean score over last 1 times:68.53636143840265 epoch 228 start, epsilon: 0.001 time: 2020-06-29 14:12:29.326219 부족분 점수: 38.53636143840264 추가분 점수: 0 기타 점수: 30.0 [Episode 229] - Mean score over last 1 times:68.53636143840265 epoch 229 start, epsilon: 0.001 time: 2020-06-29 14:12:32.729336 부족분 점수: 37.68346459982741 추가분 점수: 0 기타 점수: 30.0 [Episode 230] - Mean score over last 1 times:67.6834645998274 epoch 230 start, epsilon: 0.001 time: 2020-06-29 14:12:36.169466 부족분 점수: 36.32791852005003 추가분 점수: 0.008506695528194275 기타 점수: 30.0 [Episode 231] - Mean score over last 1 times:66.33642521557823 epoch 231 start, epsilon: 0.001 time: 2020-06-29 14:12:39.556063 부족분 점수: 34.56380374939748 추가분 점수: 0.7764828116518063 기타 점수: 30.0 [Episode 232] - Mean score over last 1 times:65.34028656104928 epoch 232 start. epsilon: 0.001 time: 2020-06-29 14:12:42.983857 부족분 점수: 40.75899139899044 추가분 점수: 2.8188743574280584 기타 점수: 30.0 [Episode 233] - Mean score over last 1 times:73.5778657564185 epoch 233 start, epsilon: 0.001 time: 2020-06-29 14:12:46.416414 부족분 점수: 32.24764007553724 추가분 점수: 3.5814023789869576 기타 점수: 30.0 [Episode 234] - Mean score over last 1 times:65.8290424545242 epoch 234 start, epsilon: 0.001 time: 2020-06-29 14:12:49.811401 부족분 점수: 27.703878825824102 추가분 점수: 0 기타 점수: 30.0 [Episode 235] - Mean score over last 1 times:57.703878825824106 epoch 235 start, epsilon: 0.001 time: 2020-06-29 14:12:53.214252 부족분 점수: 30.97023946854811 추가분 점수: 5.939959134682587 기타 점수: 30.0 [Episode 236] - Mean score over last 1 times:66.9101986032307 epoch 236 start, epsilon: 0.001 time: 2020-06-29 14:12:56.620345

localhost:8888/notebooks/competitions-master/process optimization/DQN/process optimization/Untitled.ipynb

부족분 점수: 31.202932459786737 추가분 점수: 5.525919922779234

```
기타 점수: 30.0
```

[Episode 237] - Mean score over last 1 times:66.72885238256598

epoch 237 start, epsilon: 0.001 time: 2020-06-29 14:13:00.045864

부족분 점수: 30.87737547706157 추가분 점수: 6.423987345330364

기타 점수: 30.0

[Episode 238] - Mean score over last 1 times:67.30136282239194

epoch 238 start, epsilon: 0.001 time: 2020-06-29 14:13:03.501949

부족분 점수: 30.891015682242205 추가분 점수: 6.545136329857026

기타 점수: 30.0

[Episode 239] - Mean score over last 1 times:67.43615201209923

epoch 239 start, epsilon: 0.001 time: 2020-06-29 14:13:06.946680

부족분 점수: 32.10936403157769 추가분 점수: 6.678652433747465

기타 점수: 30.0

[Episode 240] - Mean score over last 1 times:68.78801646532516

epoch 240 start, epsilon: 0.001 time: 2020-06-29 14:13:10.393050

부족분 점수: 32.00979667799562 추가분 점수: 7.692601386815636

기타 점수: 30.0

[Episode 241] - Mean score over last 1 times:69.70239806481126

epoch 241 start, epsilon: 0.001 time: 2020-06-29 14:13:13.821694

부족분 점수: 31.96119115856646 추가분 점수: 8.442517133971698

기타 점수: 30.0

[Episode 242] - Mean score over last 1 times:70.40370829253816

epoch 242 start, epsilon: 0.001 time: 2020-06-29 14:13:17.228807

부족분 점수: 33.91791852926638 추가분 점수: 8.165375199342076

기타 점수: 30.0

[Episode 243] - Mean score over last 1 times:72.08329372860845

epoch 243 start, epsilon: 0.001 time: 2020-06-29 14:13:20.676785

부족분 점수: 34.30893928050375 추가분 점수: 8.366162091719321

기타 점수: 30.0

[Episode 244] - Mean score over last 1 times:72.67510137222307

epoch 244 start, epsilon: 0.001 time: 2020-06-29 14:13:24.121874

부족분 점수: 34.31028486831211 추가분 점수: 8.354859768552753

기타 점수: 30.0

[Episode 245] - Mean score over last 1 times:72.66514463686487

epoch 245 start, epsilon: 0.001 time: 2020-06-29 14:13:27.538623

부족분 점수: 36.10292732934921 추가분 점수: 8.315115774313588

기타 점수: 30.0

[Episode 246] - Mean score over last 1 times:74.4180431036628

epoch 246 start, epsilon: 0.001 time: 2020-06-29 14:13:30.981784

부족분 점수: 34.792257217404284 추가분 점수: 7.899703325537322

```
[Episode 247] - Mean score over last 1 times:72.69196054294162
```

```
epoch 247 start, epsilon: 0.001 time: 2020-06-29 14:13:34.417055
```

부족분 점수: 35.77524904894898 추가분 점수: 4.70627815020385

기타 점수: 30.0

[Episode 248] - Mean score over last 1 times:70.48152719915282

epoch 248 start, epsilon: 0.001 time: 2020-06-29 14:13:38.200078

부족분 점수: 36.032823126169134 추가분 점수: 4.711562193652206

기타 점수: 30.0

[Episode 249] - Mean score over last 1 times:70.74438531982133

epoch 249 start, epsilon: 0.001 time: 2020-06-29 14:13:41.640242

부족분 점수: 36.032823126169134 추가분 점수: 4.370541703544886

기타 점수: 30.0

[Episode 250] - Mean score over last 1 times:70.40336482971402

epoch 250 start, epsilon: 0.001 time: 2020-06-29 14:13:45.149785

부족분 점수: 36.070060271888615 추가분 점수: 4.36337936697774

기타 점수: 30.0

[Episode 251] - Mean score over last 1 times:70.43343963886636

epoch 251 start, epsilon: 0.001 time: 2020-06-29 14:13:48.571591

부족분 점수: 36.084141326042996 추가분 점수: 2.940953579371095

기타 점수: 30.0

[Episode 252] - Mean score over last 1 times:69.0250949054141

epoch 252 start, epsilon: 0.001 time: 2020-06-29 14:13:52.034725

부족분 점수: 42.55763063491776 추가분 점수: 0.5467860573754946

기타 점수: 30.0

[Episode 253] - Mean score over last 1 times:73.10441669229326

epoch 253 start, epsilon: 0.001 time: 2020-06-29 14:13:55.480394

부족분 점수: 42.54735747137631

추가분 점수: 0 기타 점수: 30.0

[Episode 254] - Mean score over last 1 times:72.5473574713763

epoch 254 start, epsilon: 0.001 time: 2020-06-29 14:13:58.921354

부족분 점수: 42.55094877765021

추가분 점수: 0 기타 점수: 30.0

[Episode 255] - Mean score over last 1 times:72.5509487776502

epoch 255 start, epsilon: 0.001 time: 2020-06-29 14:14:02.375713

부족분 점수: 42.6191498035534

추가분 점수: 0 기타 점수: 30.0

[Episode 256] - Mean score over last 1 times:72.6191498035534

epoch 256 start, epsilon: 0.001 time: 2020-06-29 14:14:05.785057

부족분 점수: 42.55915133346831

추가분 점수: 0 기타 점수: 30.0

```
[Episode 257] - Mean score over last 1 times:72.55915133346831
epoch 257 start, epsilon: 0.001 time: 2020-06-29 14:14:09.283816
부족분 점수: 42.55825734704768
추가분 점수: 0
기타 점수: 30.0
[Episode 258] - Mean score over last 1 times:72.55825734704769
epoch 258 start, epsilon: 0.001 time: 2020-06-29 14:14:12.742981
부족분 점수: 41.811534452424105
추가분 점수: 0
기타 점수: 30.0
[Episode 259] - Mean score over last 1 times:71.8115344524241
epoch 259 start, epsilon: 0.001 time: 2020-06-29 14:14:16.166535
부족분 점수: 42.046313411977515
추가분 점수: 0
기타 점수: 30.0
[Episode 260] - Mean score over last 1 times:72.04631341197751
epoch 260 start, epsilon: 0.001 time: 2020-06-29 14:14:19.608365
부족분 점수: 40.67324089739033
추가분 점수: 0
기타 점수: 30.0
[Episode 261] - Mean score over last 1 times:70.67324089739033
epoch 261 start, epsilon: 0.001 time: 2020-06-29 14:14:23.109906
부족분 점수: 40.05911216396018
추가분 점수: 0
기타 점수: 30.0
[Episode 262] - Mean score over last 1 times:70.05911216396018
epoch 262 start, epsilon: 0.001 time: 2020-06-29 14:14:26.540137
부족분 점수: 40.13522696656276
추가분 점수: 0
기타 점수: 30.0
[Episode 263] - Mean score over last 1 times:70.13522696656275
epoch 263 start, epsilon: 0.001 time: 2020-06-29 14:14:30.102976
부족분 점수: 40.12431480241825
추가분 점수: 0
기타 점수: 30.0
[Episode 264] - Mean score over last 1 times:70.12431480241824
epoch 264 start, epsilon: 0.001 time: 2020-06-29 14:14:33.528438
부족분 점수: 39.44490662757294
추가분 점수: 0
기타 점수: 30.0
[Episode 265] - Mean score over last 1 times:69.44490662757295
epoch 265 start, epsilon: 0.001 time: 2020-06-29 14:14:36.951620
부족분 점수: 39.18346168131504
추가분 점수: 0
기타 점수: 30.0
[Episode 266] - Mean score over last 1 times:69.18346168131504
epoch 266 start, epsilon: 0.001 time: 2020-06-29 14:14:40.369037
부족분 점수: 39.18346168131504
추가분 점수: 0
기타 점수: 30.0
[Episode 267] - Mean score over last 1 times:69.18346168131504
```

```
epoch 267 start, epsilon: 0.001 time: 2020-06-29 14:14:44.081038
부족분 점수: 39.18346168131504
추가분 점수: 0
기타 점수: 30.0
[Episode 268] - Mean score over last 1 times:69.18346168131504
epoch 268 start, epsilon: 0.001 time: 2020-06-29 14:14:47.790529
부족분 점수: 39.60858140944486
추가분 점수: 0
기타 점수: 30.0
[Episode 269] - Mean score over last 1 times:69.60858140944487
epoch 269 start, epsilon: 0.001 time: 2020-06-29 14:14:51.556434
부족분 점수: 39.55447526222834
추가분 점수: 0
기타 점수: 30.0
[Episode 270] - Mean score over last 1 times:69.55447526222834
epoch 270 start, epsilon: 0.001 time: 2020-06-29 14:14:55.302697
부족분 점수: 39.6244949821556
추가분 점수: 0
기타 점수: 30.0
[Episode 271] - Mean score over last 1 times:69.6244949821556
epoch 271 start, epsilon: 0.001 time: 2020-06-29 14:14:58.989789
부족분 점수: 39.57252549320555
추가분 점수: 0
기타 점수: 30.0
[Episode 272] - Mean score over last 1 times:69.57252549320555
epoch 272 start, epsilon: 0.001 time: 2020-06-29 14:15:02.729997
부족분 점수: 39.99143186210613
추가분 점수: 0
기타 점수: 30.0
[Episode 273] - Mean score over last 1 times:69.99143186210614
epoch 273 start, epsilon: 0.001 time: 2020-06-29 14:15:06.551615
부족분 점수: 37.55061084463899
추가분 점수: 0
기타 점수: 30.0
[Episode 274] - Mean score over last 1 times:67.55061084463898
epoch 274 start, epsilon: 0.001 time: 2020-06-29 14:15:10.273473
부족분 점수: 37.55061084463899
추가분 점수: 0
기타 점수: 30.0
[Episode 275] - Mean score over last 1 times:67.55061084463898
epoch 275 start, epsilon: 0.001 time: 2020-06-29 14:15:14.063880
부족분 점수: 37.968925830769905
추가분 점수: 0
기타 점수: 30.0
[Episode 276] - Mean score over last 1 times:67.9689258307699
epoch 276 start, epsilon: 0.001 time: 2020-06-29 14:15:17.866061
부족분 점수: 37.968925830769905
추가분 점수: 0
기타 점수: 30.0
[Episode 277] - Mean score over last 1 times:67.9689258307699
```

```
epoch 277 start, epsilon: 0.001 time: 2020-06-29 14:15:21.641372
부족분 점수: 39.24388410372332
추가분 점수: 0
기타 점수: 30.0
[Episode 278] - Mean score over last 1 times:69.24388410372332
epoch 278 start, epsilon: 0.001 time: 2020-06-29 14:15:25.386251
부족분 점수: 39.24388410372332
추가분 점수: 0
기타 점수: 30.0
[Episode 279] - Mean score over last 1 times:69.24388410372332
epoch 279 start, epsilon: 0.001 time: 2020-06-29 14:15:29.087590
부족분 점수: 39.24388410372332
추가분 점수: 0
기타 점수: 30.0
[Episode 280] - Mean score over last 1 times:69.24388410372332
epoch 280 start, epsilon: 0.001 time: 2020-06-29 14:15:32.571252
부족분 점수: 39.24388410372332
추가분 점수: 0
기타 점수: 30.0
[Episode 281] - Mean score over last 1 times:69.24388410372332
epoch 281 start, epsilon: 0.001 time: 2020-06-29 14:15:36.057435
부족분 점수: 38.32022716471439
추가분 점수: 0
기타 점수: 30.0
[Episode 282] - Mean score over last 1 times:68.3202271647144
epoch 282 start, epsilon: 0.001 time: 2020-06-29 14:15:39.532443
부족분 점수: 38.33099647535869
추가분 점수: 0
기타 점수: 30.0
[Episode 283] - Mean score over last 1 times:68.33099647535869
epoch 283 start, epsilon: 0.001 time: 2020-06-29 14:15:42.945522
부족분 점수: 38.3327905924365
추가분 점수: 0
기타 점수: 30.0
[Episode 284] - Mean score over last 1 times:68.33279059243651
epoch 284 start, epsilon: 0.001 time: 2020-06-29 14:15:46.400838
부족분 점수: 38.343579871849656
추가분 점수: 0
기타 점수: 30.0
[Episode 285] - Mean score over last 1 times:68.34357987184966
epoch 285 start, epsilon: 0.001 time: 2020-06-29 14:15:49.813336
부족분 점수: 38.32766629913892
추가분 점수: 0
기타 점수: 30.0
[Episode 286] - Mean score over last 1 times:68.32766629913891
epoch 286 start, epsilon: 0.001 time: 2020-06-29 14:15:53.287040
부족분 점수: 38.343579871849656
추가분 점수: 0
기타 점수: 30.0
[Episode 287] - Mean score over last 1 times:68.34357987184966
epoch 287 start, epsilon: 0.001 time: 2020-06-29 14:15:56.735019
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부족분 점수: 37.665199320570316
추가분 점수: 0
기타 점수: 30.0
[Episode 288] - Mean score over last 1 times:67.66519932057031
epoch 288 start, epsilon: 0.001 time: 2020-06-29 14:16:00.194342
부족분 점수: 38.343579871849656
추가분 점수: 0
기타 점수: 30.0
[Episode 289] - Mean score over last 1 times:68.34357987184966
epoch 289 start, epsilon: 0.001 time: 2020-06-29 14:16:03.645541
부족분 점수: 37.33656253926551
추가분 점수: 0
기타 점수: 30.0
[Episode 290] - Mean score over last 1 times:67.33656253926551
epoch 290 start, epsilon: 0.001 time: 2020-06-29 14:16:07.165297
부족분 점수: 37.33656253926551
추가분 점수: 0
기타 점수: 30.0
[Episode 291] - Mean score over last 1 times: 67.33656253926551
epoch 291 start. epsilon: 0.001 time: 2020-06-29 14:16:10.632477
부족분 점수: 37.33656253926551
추가분 점수: 0
기타 점수: 30.0
[Episode 292] - Mean score over last 1 times:67.33656253926551
epoch 292 start, epsilon: 0.001 time: 2020-06-29 14:16:14.063071
부족분 점수: 37.33656253926551
추가분 점수: 0
기타 점수: 30.0
[Episode 293] - Mean score over last 1 times:67.33656253926551
epoch 293 start, epsilon: 0.001 time: 2020-06-29 14:16:17.502144
부족분 점수: 37.33656253926551
추가분 점수: 0
기타 점수: 30.0
[Episode 294] - Mean score over last 1 times:67.33656253926551
epoch 294 start, epsilon: 0.001 time: 2020-06-29 14:16:20.966364
부족분 점수: 37.107702015586085
추가분 점수: 0
기타 점수: 30.0
[Episode 295] - Mean score over last 1 times:67.10770201558609
epoch 295 start, epsilon: 0.001 time: 2020-06-29 14:16:24.402451
부족분 점수: 37.107702015586085
추가분 점수: 0
기타 점수: 30.0
[Episode 296] - Mean score over last 1 times:67.10770201558609
epoch 296 start, epsilon: 0.001 time: 2020-06-29 14:16:27.847636
부족분 점수: 36.331560516275616
추가분 점수: 0
기타 점수: 30.0
[Episode 297] - Mean score over last 1 times:66.33156051627562
epoch 297 start, epsilon: 0.001 time: 2020-06-29 14:16:31.270723
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부족분 점수: 36.271569726486234
추가분 점수: 0
기타 점수: 30.0
[Episode 298] - Mean score over last 1 times:66.27156972648623
epoch 298 start, epsilon: 0.001 time: 2020-06-29 14:16:34.744684
부족분 점수: 36.28311167487895
추가분 점수: 0
기타 점수: 30.0
[Episode 299] - Mean score over last 1 times:66.28311167487895
epoch 299 start, epsilon: 0.001 time: 2020-06-29 14:16:38.173163
부족분 점수: 36.271569726486234
추가분 점수: 0
기타 점수: 30.0
[Episode 300] - Mean score over last 1 times:66.27156972648623
epoch 300 start, epsilon: 0.001 time: 2020-06-29 14:16:41.613643
부족분 점수: 36.27975384959462
추가분 점수: 0
기타 점수: 30.0
[Episode 301] - Mean score over last 1 times:66.27975384959461
epoch 301 start, epsilon: 0.001 time: 2020-06-29 14:16:45.066173
부족분 점수: 36.689881640498875
추가분 점수: 0
기타 점수: 30.0
[Episode 302] - Mean score over last 1 times:66.68988164049887
epoch 302 start, epsilon: 0.001 time: 2020-06-29 14:16:48.508617
부족분 점수: 36.689881640498875
추가분 점수: 0
기타 점수: 30.0
[Episode 303] - Mean score over last 1 times:66.68988164049887
epoch 303 start, epsilon: 0.001 time: 2020-06-29 14:16:51.938673
부족분 점수: 36.67896947635437
추가분 점수: 0
기타 점수: 30.0
[Episode 304] - Mean score over last 1 times:66.67896947635437
epoch 304 start, epsilon: 0.001 time: 2020-06-29 14:16:55.398902
부족분 점수: 36.689881640498875
추가분 점수: 0
기타 점수: 30.0
[Episode 305] - Mean score over last 1 times:66.68988164049887
epoch 305 start, epsilon: 0.001 time: 2020-06-29 14:16:58.827932
부족분 점수: 44.80782056863066
추가분 점수: 0
기타 점수: 30.0
[Episode 306] - Mean score over last 1 times:74.80782056863066
epoch 306 start, epsilon: 0.001 time: 2020-06-29 14:17:02.252918
부족분 점수: 44.80145513954636
추가분 점수: 0
기타 점수: 30.0
[Episode 307] - Mean score over last 1 times:74.80145513954636
epoch 307 start, epsilon: 0.001 time: 2020-06-29 14:17:05.666249
부족분 점수: 45.827470451598316
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추가분 점수: 0
기타 점수: 30.0
[Episode 308] - Mean score over last 1 times:75.82747045159832
epoch 308 start, epsilon: 0.001 time: 2020-06-29 14:17:09.110480
부족분 점수: 45.80973818486349
추가분 점수: 0
기타 점수: 30.0
[Episode 309] - Mean score over last 1 times:75.80973818486349
epoch 309 start, epsilon: 0.001 time: 2020-06-29 14:17:12.540739
부족분 점수: 45.827470451598316
추가분 점수: 0
기타 점수: 30.0
[Episode 310] - Mean score over last 1 times:75.82747045159832
epoch 310 start, epsilon: 0.001 time: 2020-06-29 14:17:16.032762
부족분 점수: 41.3072615967089
추가분 점수: 0
기타 점수: 30.0
[Episode 311] - Mean score over last 1 times:71.3072615967089
epoch 311 start, epsilon: 0.001 time: 2020-06-29 14:17:19.457704
부족분 점수: 41.404561726997436
추가분 점수: 0
기타 점수: 30.0
[Episode 312] - Mean score over last 1 times:71.40456172699743
epoch 312 start, epsilon: 0.001 time: 2020-06-29 14:17:22.932859
부족분 점수: 41.404561726997436
추가분 점수: 0
기타 점수: 30.0
[Episode 313] - Mean score over last 1 times:71.40456172699743
epoch 313 start, epsilon: 0.001 time: 2020-06-29 14:17:26.406215
부족분 점수: 42.0732758580964
추가분 점수: 0
기타 점수: 30.0
[Episode 314] - Mean score over last 1 times:72.0732758580964
epoch 314 start, epsilon: 0.001 time: 2020-06-29 14:17:29.840419
부족분 점수: 42.07236651108436
추가분 점수: 0
기타 점수: 30.0
[Episode 315] - Mean score over last 1 times:72.07236651108437
epoch 315 start, epsilon: 0.001 time: 2020-06-29 14:17:33.307260
부족분 점수: 42.60876911587201
추가분 점수: 0
기타 점수: 30.0
[Episode 316] - Mean score over last 1 times:72.60876911587201
epoch 316 start, epsilon: 0.001 time: 2020-06-29 14:17:36.719151
부족분 점수: 42.10499087120052
추가분 점수: 0
기타 점수: 30.0
[Episode 317] - Mean score over last 1 times:72.10499087120053
epoch 317 start, epsilon: 0.001 time: 2020-06-29 14:17:40.133576
부족분 점수: 37.14543684446756
추가분 점수: 0
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기타 점수: 30.0
[Episode 318] - Mean score over last 1 times:67.14543684446755
epoch 318 start, epsilon: 0.001 time: 2020-06-29 14:17:43.540584
부족분 점수: 37.14543684446756
추가분 점수: 0
기타 점수: 30.0
[Episode 319] - Mean score over last 1 times:67.14543684446755
epoch 319 start, epsilon: 0.001 time: 2020-06-29 14:17:46.970500
부족분 점수: 37.12342358090408
추가분 점수: 0
기타 점수: 30.0
[Episode 320] - Mean score over last 1 times:67.12342358090407
epoch 320 start, epsilon: 0.001 time: 2020-06-29 14:17:50.392655
부족분 점수: 37.116695641862286
추가분 점수: 0
기타 점수: 30.0
[Episode 321] - Mean score over last 1 times:67.1166956418623
epoch 321 start. epsilon: 0.001 time: 2020-06-29 14:17:53.808609
부족분 점수: 36.95385186798617
추가분 점수: 0
기타 점수: 30.0
[Episode 322] - Mean score over last 1 times:66.95385186798617
epoch 322 start, epsilon: 0.001 time: 2020-06-29 14:17:57.235885
부족분 점수: 38.79680794621827
추가분 점수: 0
기타 점수: 30.0
[Episode 323] - Mean score over last 1 times:68.79680794621828
epoch 323 start, epsilon: 0.001 time: 2020-06-29 14:18:00.654374
부족분 점수: 38.621967550443415
추가분 점수: 0
기타 점수: 30.0
[Episode 324] - Mean score over last 1 times:68.62196755044342
epoch 324 start, epsilon: 0.001 time: 2020-06-29 14:18:04.081961
부족분 점수: 38.63016088990665
추가분 점수: 0
기타 점수: 30.0
[Episode 325] - Mean score over last 1 times:68.63016088990665
epoch 325 start, epsilon: 0.001 time: 2020-06-29 14:18:07.572534
부족분 점수: 40.46308803800087
추가분 점수: 0
기타 점수: 30.0
[Episode 326] - Mean score over last 1 times:70.46308803800088
epoch 326 start, epsilon: 0.001 time: 2020-06-29 14:18:11.046432
부족분 점수: 40.33728940245149
추가분 점수: 0
기타 점수: 30.0
[Episode 327] - Mean score over last 1 times:70.33728940245149
epoch 327 start, epsilon: 0.001 time: 2020-06-29 14:18:14.538960
부족분 점수: 40.250981311382844
추가분 점수: 0
기타 점수: 30.0
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[Episode 328] - Mean score over last 1 times:70.25098131138284
epoch 328 start, epsilon: 0.001 time: 2020-06-29 14:18:17.947008
부족분 점수: 41.39103519019331
추가분 점수: 3.7133848814300596
기타 점수: 30.0
[Episode 329] - Mean score over last 1 times:75.10442007162337
epoch 329 start, epsilon: 0.001 time: 2020-06-29 14:18:21.417753
부족분 점수: 41.36291301942224
추가분 점수: 3.1471019325774496
기타 점수: 30.0
[Episode 330] - Mean score over last 1 times:74.5100149519997
epoch 330 start, epsilon: 0.001 time: 2020-06-29 14:18:24.857891
부족분 점수: 40.95226296840971
추가분 점수: 3.5542417812387583
기타 점수: 30.0
[Episode 331] - Mean score over last 1 times:74.50650474964847
epoch 331 start, epsilon: 0.001 time: 2020-06-29 14:18:28.286619
부족분 점수: 23.337125351335125
추가분 점수: 0
기타 점수: 30.0
[Episode 332] - Mean score over last 1 times:53.337125351335125
epoch 332 start, epsilon: 0.001 time: 2020-06-29 14:18:31.778244
부족분 점수: 36.40954316679482
추가분 점수: 4.100843511517218
기타 점수: 30.0
[Episode 333] - Mean score over last 1 times:70.51038667831205
epoch 333 start, epsilon: 0.001 time: 2020-06-29 14:18:35.196335
부족분 점수: 35.65926890343503
추가분 점수: 4.084323502657227
기타 점수: 30.0
[Episode 334] - Mean score over last 1 times:69.74359240609226
epoch 334 start, epsilon: 0.001 time: 2020-06-29 14:18:38.637132
부족분 점수: 35.66016596197393
추가분 점수: 4.0724552953027615
기타 점수: 30.0
[Episode 335] - Mean score over last 1 times:69.73262125727669
epoch 335 start, epsilon: 0.001 time: 2020-06-29 14:18:42.075900
부족분 점수: 36.23489938659014
추가분 점수: 4.043046521394384
기타 점수: 30.0
[Episode 336] - Mean score over last 1 times:70.27794590798453
epoch 336 start, epsilon: 0.001 time: 2020-06-29 14:18:45.518244
부족분 점수: 34.905223614881706
추가분 점수: 0.5296460950458104
기타 점수: 30.0
[Episode 337] - Mean score over last 1 times:65.43486970992751
epoch 337 start, epsilon: 0.001 time: 2020-06-29 14:18:48.953028
부족분 점수: 34.92477457564062
추가분 점수: 0.6278285377054904
기타 점수: 30.0
[Episode 338] - Mean score over last 1 times:65.55260311334611
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epoch 338 start, epsilon: 0.001 time: 2020-06-29 14:18:52.390887
부족분 점수: 34.39126283415814
추가분 점수: 0.37939677728647814
기타 점수: 30.0
[Episode 339] - Mean score over last 1 times:64.77065961144461
epoch 339 start, epsilon: 0.001 time: 2020-06-29 14:18:55.820387
부족분 점수: 34.39126283415814
추가분 점수: 0.37939677728647814
기타 점수: 30.0
[Episode 340] - Mean score over last 1 times:64.77065961144461
epoch 340 start. epsilon: 0.001 time: 2020-06-29 14:18:59.286282
부족분 점수: 34.39126283415814
추가분 점수: 0.362881069392087
기타 점수: 30.0
[Episode 341] - Mean score over last 1 times:64.75414390355023
epoch 341 start. epsilon: 0.001 time: 2020-06-29 14:19:02.794360
부족분 점수: 33.875057871028176
추가분 점수: 2.2559639800275444
기타 점수: 30.0
[Episode 342] - Mean score over last 1 times:66.13102185105572
epoch 342 start, epsilon: 0.001 time: 2020-06-29 14:19:06.239864
부족분 점수: 33.880513953100426
추가분 점수: 2.2414279451553165
기타 점수: 30.0
[Episode 343] - Mean score over last 1 times:66.12194189825574
epoch 343 start, epsilon: 0.001 time: 2020-06-29 14:19:09.673253
부족분 점수: 33.880513953100426
추가분 점수: 2.2548838232389157
기타 점수: 30.0
[Episode 344] - Mean score over last 1 times:66.13539777633935
epoch 344 start, epsilon: 0.001 time: 2020-06-29 14:19:13.153765
부족분 점수: 33.880513953100426
추가분 점수: 2.2593691159334495
기타 점수: 30.0
[Episode 345] - Mean score over last 1 times:66.13988306903389
epoch 345 start, epsilon: 0.001 time: 2020-06-29 14:19:16.605978
부족분 점수: 34.414025694582904
추가분 점수: 2.180251624920164
기타 점수: 30.0
[Episode 346] - Mean score over last 1 times:66.59427731950308
epoch 346 start, epsilon: 0.001 time: 2020-06-29 14:19:20.038126
부족분 점수: 34.843861124278554
추가분 점수: 0
기타 점수: 30.0
[Episode 347] - Mean score over last 1 times:64.84386112427856
epoch 347 start, epsilon: 0.001 time: 2020-06-29 14:19:23.461272
부족분 점수: 34.414025694582904
추가분 점수: 3.1611052621392455
기타 점수: 30.0
[Episode 348] - Mean score over last 1 times:67.57513095672215
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epoch 348 start, epsilon: 0.001 time: 2020-06-29 14:19:27.268181
부족분 점수: 34.46775089913222
추가분 점수: 2.989013183381193
기타 점수: 30.0
[Episode 349] - Mean score over last 1 times:67.45676408251342
epoch 349 start, epsilon: 0.001 time: 2020-06-29 14:19:30.697717
부족분 점수: 34.4759350222406
추가분 점수: 2.549641284108577
기타 점수: 30.0
[Episode 350] - Mean score over last 1 times:67.02557630634917
epoch 350 start, epsilon: 0.001 time: 2020-06-29 14:19:34.115663
부족분 점수: 34.46045769032617
추가분 점수: 3.1185103421325966
기타 점수: 30.0
[Episode 351] - Mean score over last 1 times:67.57896803245876
epoch 351 start, epsilon: 0.001 time: 2020-06-29 14:19:37.528692
부족분 점수: 34.45787711096768
추가분 점수: 3.1386536072966487
기타 점수: 30.0
[Episode 352] - Mean score over last 1 times:67.59653071826432
epoch 352 start, epsilon: 0.001 time: 2020-06-29 14:19:40.939969
부족분 점수: 34.80631676673068
추가분 점수: 3.086248184762108
기타 점수: 30.0
[Episode 353] - Mean score over last 1 times:67.89256495149279
epoch 353 start, epsilon: 0.001 time: 2020-06-29 14:19:44.421393
부족분 점수: 36.07388813127038
추가분 점수: 3.5664239590818414
기타 점수: 30.0
[Episode 354] - Mean score over last 1 times:69.64031209035221
epoch 354 start, epsilon: 0.001 time: 2020-06-29 14:19:47.864792
부족분 점수: 36.35218979055219
추가분 점수: 2.7302849113217698
기타 점수: 30.0
[Episode 355] - Mean score over last 1 times:69.08247470187396
epoch 355 start, epsilon: 0.001 time: 2020-06-29 14:19:51.311192
부족분 점수: 35.95006947595499
추가분 점수: 4.13783918873958
기타 점수: 30.0
[Episode 356] - Mean score over last 1 times:70.08790866469457
epoch 356 start, epsilon: 0.001 time: 2020-06-29 14:19:54.767746
부족분 점수: 35.95006947595499
추가분 점수: 4.3711512118124185
기타 점수: 30.0
[Episode 357] - Mean score over last 1 times:70.32122068776741
epoch 357 start, epsilon: 0.001 time: 2020-06-29 14:19:58.142639
부족분 점수: 35.95006947595499
추가분 점수: 4.380137157792905
기타 점수: 30.0
[Episode 358] - Mean score over last 1 times:70.33020663374789
```

```
epoch 358 start, epsilon: 0.001 time: 2020-06-29 14:20:01.541295
부족분 점수: 35.95006947595499
추가분 점수: 4.303856460802997
기타 점수: 30.0
[Episode 359] - Mean score over last 1 times:70.25392593675798
epoch 359 start, epsilon: 0.001 time: 2020-06-29 14:20:04.970709
부족분 점수: 35.95006947595499
추가분 점수: 4.155780359517713
기타 점수: 30.0
[Episode 360] - Mean score over last 1 times:70.1058498354727
epoch 360 start, epsilon: 0.001 time: 2020-06-29 14:20:08.459841
부족분 점수: 35.95006947595499
추가분 점수: 4.155780359517713
기타 점수: 30.0
[Episode 361] - Mean score over last 1 times:70.1058498354727
epoch 361 start, epsilon: 0.001 time: 2020-06-29 14:20:11.932552
부족분 점수: 36.97629061993196
추가분 점수: 4.155780359517713
기타 점수: 30.0
[Episode 362] - Mean score over last 1 times:71.13207097944968
epoch 362 start, epsilon: 0.001 time: 2020-06-29 14:20:15.361315
부족분 점수: 36.97629061993196
추가분 점수: 3.265374185543042
기타 점수: 30.0
[Episode 363] - Mean score over last 1 times:70.241664805475
epoch 363 start, epsilon: 0.001 time: 2020-06-29 14:20:18.807485
부족분 점수: 33.586367843769274
추가분 점수: 4.501967538154941
기타 점수: 30.0
[Episode 364] - Mean score over last 1 times:68.08833538192422
epoch 364 start, epsilon: 0.001 time: 2020-06-29 14:20:22.280579
부족분 점수: 33.586367843769274
추가분 점수: 4.519908708933076
기타 점수: 30.0
[Episode 365] - Mean score over last 1 times:68.10627655270235
epoch 365 start, epsilon: 0.001 time: 2020-06-29 14:20:25.633618
부족분 점수: 33.586367843769274
추가분 점수: 3.658409939162841
기타 점수: 30.0
[Episode 366] - Mean score over last 1 times:67.24477778293212
epoch 366 start, epsilon: 0.001 time: 2020-06-29 14:20:29.063322
부족분 점수: 33.89809875815762
추가분 점수: 1.9547741178949973
기타 점수: 30.0
[Episode 367] - Mean score over last 1 times:65.85287287605263
epoch 367 start, epsilon: 0.001 time: 2020-06-29 14:20:32.468554
부족분 점수: 33.586367843769274
추가분 점수: 2.675213504540437
기타 점수: 30.0
[Episode 368] - Mean score over last 1 times:66.2615813483097
epoch 368 start, epsilon: 0.001 time: 2020-06-29 14:20:35.925642
```

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  부족분 점수: 33.586367843769274
  추가분 점수: 2.72009715266861
  기타 점수: 30.0
  [Episode 369] - Mean score over last 1 times:66.30646499643788
  epoch 369 start, epsilon: 0.001 time: 2020-06-29 14:20:39.371175
  부족분 점수: 33.586367843769274
  추가분 점수: 0.7558664402720305
  기타 점수: 30.0
  [Episode 370] - Mean score over last 1 times:64.3422342840413
  epoch 370 start, epsilon: 0.001 time: 2020-06-29 14:20:42.871521
  부족분 점수: 36.43223076032163
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 371] - Mean score over last 1 times:66.43223076032163
  epoch 371 start, epsilon: 0.001 time: 2020-06-29 14:20:46.307001
  부족분 점수: 36.43223076032163
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 372] - Mean score over last 1 times:66.43223076032163
  epoch 372 start. epsilon: 0.001 time: 2020-06-29 14:20:49.759774
  부족분 점수: 36.43223076032163
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 373] - Mean score over last 1 times:66.43223076032163
  epoch 373 start, epsilon: 0.001 time: 2020-06-29 14:20:53.216778
  부족분 점수: 35.85922693829927
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 374] - Mean score over last 1 times:65.85922693829927
  epoch 374 start, epsilon: 0.001 time: 2020-06-29 14:20:56.666260
  부족분 점수: 37.55152940800588
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 375] - Mean score over last 1 times:67.55152940800588
  epoch 375 start, epsilon: 0.001 time: 2020-06-29 14:21:00.076769
  부족분 점수: 37.55152940800588
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 376] - Mean score over last 1 times:67.55152940800588
  epoch 376 start, epsilon: 0.001 time: 2020-06-29 14:21:03.498010
  부족분 점수: 37.55152940800588
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 377] - Mean score over last 1 times:67.55152940800588
  epoch 377 start, epsilon: 0.001 time: 2020-06-29 14:21:06.919656
  부족분 점수: 24.74752871124945
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 378] - Mean score over last 1 times:54.74752871124945
 epoch 378 start, epsilon: 0.001 time: 2020-06-29 14:21:10.349897
  부족분 점수: 37.55152940800588
```

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 추가분 점수: 0
 기타 점수: 30.0
 추가분 점수: 0
 기타 점수: 30.0
```

[Episode 379] - Mean score over last 1 times:67.55152940800588

epoch 379 start, epsilon: 0.001 time: 2020-06-29 14:21:13.772105

부족분 점수: 36.535108321354635

[Episode 380] - Mean score over last 1 times:66.53510832135464

epoch 380 start, epsilon: 0.001 time: 2020-06-29 14:21:17.199007

부족분 점수: 36.52530826402891

[Episode 381] - Mean score over last 1 times:66.52530826402891

epoch 381 start, epsilon: 0.001 time: 2020-06-29 14:21:20.648000

부족분 점수: 36.52530826402891

[Episode 382] - Mean score over last 1 times:66.52530826402891

epoch 382 start, epsilon: 0.001 time: 2020-06-29 14:21:24.075892

부족분 점수: 36.52530826402891

[Episode 383] - Mean score over last 1 times:66.52530826402891

epoch 383 start, epsilon: 0.001 time: 2020-06-29 14:21:27.480621

부족분 점수: 25.225980412788246

추가분 점수: 0 기타 점수: 30.0

[Episode 384] - Mean score over last 1 times:55.225980412788246

epoch 384 start, epsilon: 0.001 time: 2020-06-29 14:21:30.919481

부족분 점수: 25.225980412788246

추가분 점수: 0 기타 점수: 30.0

[Episode 385] - Mean score over last 1 times:55.225980412788246

epoch 385 start, epsilon: 0.001 time: 2020-06-29 14:21:34.356129

부족분 점수: 25.268996212999795

추가분 점수: 0 기타 점수: 30.0

[Episode 386] - Mean score over last 1 times:55.268996212999795

epoch 386 start, epsilon: 0.001 time: 2020-06-29 14:21:37.797082

부족분 점수: 25.225980412788246

추가분 점수: 0 기타 점수: 30.0

[Episode 387] - Mean score over last 1 times:55.225980412788246

epoch 387 start, epsilon: 0.001 time: 2020-06-29 14:21:41.210495

부족분 점수: 25.195271518422114

추가분 점수: 0 기타 점수: 30.0

[Episode 388] - Mean score over last 1 times:55.19527151842212

epoch 388 start, epsilon: 0.001 time: 2020-06-29 14:21:44.665950

부족분 점수: 35.51829093144476

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  추가분 점수: 0
  기타 점수: 30.0
  [Episode 389] - Mean score over last 1 times:65.51829093144477
  epoch 389 start, epsilon: 0.001 time: 2020-06-29 14:21:48.075458
  부족분 점수: 35.51829093144476
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 390] - Mean score over last 1 times:65.51829093144477
  epoch 390 start, epsilon: 0.001 time: 2020-06-29 14:21:51.540561
  부족분 점수: 35.51829093144476
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 391] - Mean score over last 1 times:65.51829093144477
  epoch 391 start, epsilon: 0.001 time: 2020-06-29 14:21:54.980503
  부족분 점수: 35.51829093144476
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 392] - Mean score over last 1 times:65.51829093144477
  epoch 392 start, epsilon: 0.001 time: 2020-06-29 14:21:58.392866
  부족분 점수: 35.51829093144476
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 393] - Mean score over last 1 times:65.51829093144477
  epoch 393 start, epsilon: 0.001 time: 2020-06-29 14:22:01.810918
  부족분 점수: 35.51829093144476
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 394] - Mean score over last 1 times:65.51829093144477
  epoch 394 start, epsilon: 0.001 time: 2020-06-29 14:22:05.255684
  부족분 점수: 35.124368564488215
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 395] - Mean score over last 1 times:65.12436856448821
  epoch 395 start, epsilon: 0.001 time: 2020-06-29 14:22:08.772315
  부족분 점수: 35.124368564488215
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 396] - Mean score over last 1 times:65.12436856448821
  epoch 396 start, epsilon: 0.001 time: 2020-06-29 14:22:12.276072
  부족분 점수: 36.40202876547234
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 397] - Mean score over last 1 times:66.40202876547234
  epoch 397 start, epsilon: 0.001 time: 2020-06-29 14:22:15.716130
  부족분 점수: 35.71032290113647
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 398] - Mean score over last 1 times:65.71032290113646
  epoch 398 start, epsilon: 0.001 time: 2020-06-29 14:22:19.168666
  부족분 점수: 35.71032290113647
```

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추가분 점수: 0

2020. 6. 29. Untitled - Jupyter Notebook 기타 점수: 30.0 [Episode 399] - Mean score over last 1 times:65.71032290113646 epoch 399 start, epsilon: 0.001 time: 2020-06-29 14:22:22.623543 부족분 점수: 35.92366308324549 추가분 점수: 0 기타 점수: 30.0 [Episode 400] - Mean score over last 1 times:65.92366308324549 epoch 400 start, epsilon: 0.001 time: 2020-06-29 14:22:26.033559 부족분 점수: 41.10554323806797 추가분 점수: 0 기타 점수: 30.0 [Episode 401] - Mean score over last 1 times:71.10554323806798 epoch 401 start, epsilon: 0.001 time: 2020-06-29 14:22:29.470725 부족분 점수: 40.50546637366851 추가분 점수: 0 기타 점수: 30.0 [Episode 402] - Mean score over last 1 times:70.50546637366851 epoch 402 start. epsilon: 0.001 time: 2020-06-29 14:22:32.989215 부족분 점수: 40.50546637366851 추가분 점수: 0 기타 점수: 30.0 [Episode 403] - Mean score over last 1 times:70.50546637366851 epoch 403 start, epsilon: 0.001 time: 2020-06-29 14:22:36.421082 부족분 점수: 40.50546637366851 추가분 점수: 0 기타 점수: 30.0 [Episode 404] - Mean score over last 1 times:70.50546637366851 epoch 404 start, epsilon: 0.001 time: 2020-06-29 14:22:39.823172 부족분 점수: 40.44287196363349 추가분 점수: 0 기타 점수: 30.0 [Episode 405] - Mean score over last 1 times:70.4428719636335 epoch 405 start, epsilon: 0.001 time: 2020-06-29 14:22:43.270503 부족분 점수: 39.66185501260644 추가분 점수: 0.40046352120667983 기타 점수: 30.0 [Episode 406] - Mean score over last 1 times:70.06231853381311 epoch 406 start, epsilon: 0.001 time: 2020-06-29 14:22:46.710753 부족분 점수: 39.55637075920952 추가분 점수: 0.4197416778619778 기타 점수: 30.0 [Episode 407] - Mean score over last 1 times:69.97611243707149 epoch 407 start, epsilon: 0.001 time: 2020-06-29 14:22:50.116378 부족분 점수: 43.32298131875593 추가분 점수: 2.571377749814674 기타 점수: 30.0 [Episode 408] - Mean score over last 1 times:75.8943590685706 epoch 408 start, epsilon: 0.001 time: 2020-06-29 14:22:53.540700 부족분 점수: 39.73551212058187 추가분 점수: 1.1578451302163417

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[Episode 409] - Mean score over last 1 times:70.89335725079822

epoch 409 start, epsilon: 0.001 time: 2020-06-29 14:22:56.974113

부족분 점수: 39.73551212058187 추가분 점수: 1.6070699272491673

기타 점수: 30.0

[Episode 410] - Mean score over last 1 times:71.34258204783104

epoch 410 start, epsilon: 0.001 time: 2020-06-29 14:23:00.393731

부족분 점수: 39.73551212058187 추가분 점수: 1.618193453131609

기타 점수: 30.0

[Episode 411] - Mean score over last 1 times:71.35370557371348

epoch 411 start, epsilon: 0.001 time: 2020-06-29 14:23:03.861551

부족분 점수: 39.73551212058187 추가분 점수: 1.632546389754117

기타 점수: 30.0

[Episode 412] - Mean score over last 1 times:71.368058510336

epoch 412 start, epsilon: 0.001 time: 2020-06-29 14:23:07.302535

부족분 점수: 39.73551212058187 추가분 점수: 1.5836843484482577

기타 점수: 30.0

[Episode 413] - Mean score over last 1 times:71.31919646903013

epoch 413 start, epsilon: 0.001 time: 2020-06-29 14:23:10.756949

부족분 점수: 25.32256781163491

추가분 점수: 0 기타 점수: 30.0

[Episode 414] - Mean score over last 1 times:55.32256781163491

epoch 414 start, epsilon: 0.001 time: 2020-06-29 14:23:14.230365

부족분 점수: 35.56023917055264 추가분 점수: 4.285260928830386

기타 점수: 30.0

[Episode 415] - Mean score over last 1 times:69.84550009938303

epoch 415 start, epsilon: 0.001 time: 2020-06-29 14:23:17.668258

부족분 점수: 35.56023917055264 추가분 점수: 4.285260928830386

기타 점수: 30.0

[Episode 416] - Mean score over last 1 times:69.84550009938303

epoch 416 start, epsilon: 0.001 time: 2020-06-29 14:23:21.151460

부족분 점수: 35.33158447879824 추가분 점수: 4.723805813860968

기타 점수: 30.0

[Episode 417] - Mean score over last 1 times:70.05539029265921

epoch 417 start, epsilon: 0.001 time: 2020-06-29 14:23:24.587047

부족분 점수: 34.86232762728324 추가분 점수: 5.609699046076551

기타 점수: 30.0

[Episode 418] - Mean score over last 1 times:70.47202667335979

epoch 418 start, epsilon: 0.001 time: 2020-06-29 14:23:28.023091

부족분 점수: 34.79951048867264 추가분 점수: 5.7102064678535065

기타 점수: 30.0

[Episode 419] - Mean score over last 1 times:70.50971695652615

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epoch 419 start, epsilon: 0.001 time: 2020-06-29 14:23:31.445829
부족분 점수: 33.987879878946245
추가분 점수: 6.1379018599525725
기타 점수: 30.0
[Episode 420] - Mean score over last 1 times:70.12578173889881
epoch 420 start, epsilon: 0.001 time: 2020-06-29 14:23:34.867767
부족분 점수: 33.987879878946245
추가분 점수: 6.1379018599525725
기타 점수: 30.0
[Episode 421] - Mean score over last 1 times:70.12578173889881
epoch 421 start, epsilon: 0.001 time: 2020-06-29 14:23:38.316785
부족분 점수: 33.987879878946245
추가분 점수: 6.1379018599525725
기타 점수: 30.0
[Episode 422] - Mean score over last 1 times:70.12578173889881
epoch 422 start, epsilon: 0.001 time: 2020-06-29 14:23:41.727038
부족분 점수: 33.98563723259899
추가분 점수: 6.471666621096912
기타 점수: 30.0
[Episode 423] - Mean score over last 1 times:70.4573038536959
epoch 423 start, epsilon: 0.001 time: 2020-06-29 14:23:45.156160
부족분 점수: 33.987879878946245
추가분 점수: 6.470658966299785
기타 점수: 30.0
[Episode 424] - Mean score over last 1 times:70.45853884524604
epoch 424 start, epsilon: 0.001 time: 2020-06-29 14:23:48.571096
부족분 점수: 31.3257833978427
추가분 점수: 6.187610577057483
기타 점수: 30.0
[Episode 425] - Mean score over last 1 times:67.51339397490018
epoch 425 start, epsilon: 0.001 time: 2020-06-29 14:23:52.005403
부족분 점수: 23.229441461246918
추가분 점수: 0
기타 점수: 30.0
[Episode 426] - Mean score over last 1 times:53.22944146124692
epoch 426 start, epsilon: 0.001 time: 2020-06-29 14:23:55.446621
부족분 점수: 31.73053958992751
추가분 점수: 4.712240517369295
기타 점수: 30.0
[Episode 427] - Mean score over last 1 times:66.44278010729681
epoch 427 start, epsilon: 0.001 time: 2020-06-29 14:23:58.872268
부족분 점수: 31.73053958992751
추가분 점수: 4.439849306453936
기타 점수: 30.0
[Episode 428] - Mean score over last 1 times:66.17038889638144
epoch 428 start, epsilon: 0.001 time: 2020-06-29 14:24:02.304984
부족분 점수: 31.716186653305
추가분 점수: 4.4699904733612
기타 점수: 30.0
[Episode 429] - Mean score over last 1 times:66.1861771266662
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epoch 429 start, epsilon: 0.001 time: 2020-06-29 14:24:05.728050
부족분 점수: 32.02287007735286
추가분 점수: 4.036164976438387
기타 점수: 30.0
[Episode 430] - Mean score over last 1 times:66.05903505379125
epoch 430 start, epsilon: 0.001 time: 2020-06-29 14:24:09.202752
부족분 점수: 33.102455451980795
추가분 점수: 3.9947079690441067
기타 점수: 30.0
[Episode 431] - Mean score over last 1 times:67.0971634210249
epoch 431 start, epsilon: 0.001 time: 2020-06-29 14:24:12.683688
부족분 점수: 31.33850503965644
추가분 점수: 1.712788890482977
기타 점수: 30.0
[Episode 432] - Mean score over last 1 times:63.051293930139416
epoch 432 start, epsilon: 0.001 time: 2020-06-29 14:24:16.101384
부족분 점수: 34.11895334158914
추가분 점수: 3.06942403619201
기타 점수: 30.0
[Episode 433] - Mean score over last 1 times:67.18837737778115
epoch 433 start, epsilon: 0.001 time: 2020-06-29 14:24:19.540348
부족분 점수: 34.903993231509
추가분 점수: 2.235488926088829
기타 점수: 30.0
[Episode 434] - Mean score over last 1 times:67.13948215759783
epoch 434 start, epsilon: 0.001 time: 2020-06-29 14:24:22.983866
부족분 점수: 34.903993231509
추가분 점수: 1.9718292897600453
기타 점수: 30.0
[Episode 435] - Mean score over last 1 times:66.87582252126904
epoch 435 start, epsilon: 0.001 time: 2020-06-29 14:24:26.404655
부족분 점수: 34.903993231509
추가분 점수: 2.7268951360072835
기타 점수: 30.0
[Episode 436] - Mean score over last 1 times:67.63088836751629
epoch 436 start, epsilon: 0.001 time: 2020-06-29 14:24:29.846707
부족분 점수: 34.903993231509
추가분 점수: 2.3724187678163666
기타 점수: 30.0
[Episode 437] - Mean score over last 1 times:67.27641199932536
epoch 437 start, epsilon: 0.001 time: 2020-06-29 14:24:33.275242
부족분 점수: 35.64890204028591
추가분 점수: 1.9482096155459017
기타 점수: 30.0
[Episode 438] - Mean score over last 1 times:67.59711165583181
epoch 438 start, epsilon: 0.001 time: 2020-06-29 14:24:36.702584
부족분 점수: 36.08353151056363
추가분 점수: 1.5174525503650749
기타 점수: 30.0
[Episode 439] - Mean score over last 1 times:67.60098406092871
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epoch 439 start, epsilon: 0.001 time: 2020-06-29 14:24:40.144713
부족분 점수: 36.08353151056363
추가분 점수: 1.530923789040095
기타 점수: 30.0
[Episode 440] - Mean score over last 1 times:67.61445529960372
epoch 440 start, epsilon: 0.001 time: 2020-06-29 14:24:43.571266
부족분 점수: 36.08353151056363
추가분 점수: 1.5174525503650749
기타 점수: 30.0
[Episode 441] - Mean score over last 1 times:67.60098406092871
epoch 441 start, epsilon: 0.001 time: 2020-06-29 14:24:47.013439
부족분 점수: 36.840108224582906
추가분 점수: 1.338137307097853
기타 점수: 30.0
[Episode 442] - Mean score over last 1 times:68.17824553168076
epoch 442 start, epsilon: 0.001 time: 2020-06-29 14:24:50.488981
부족분 점수: 36.840108224582906
추가분 점수: 1.2977543122556323
기타 점수: 30.0
[Episode 443] - Mean score over last 1 times:68.13786253683854
epoch 443 start, epsilon: 0.001 time: 2020-06-29 14:24:53.984341
부족분 점수: 36.840108224582906
추가분 점수: 1.3291667217087855
기타 점수: 30.0
[Episode 444] - Mean score over last 1 times:68.1692749462917
epoch 444 start, epsilon: 0.001 time: 2020-06-29 14:24:57.414495
부족분 점수: 36.81875085827304
추가분 점수: 0
기타 점수: 30.0
[Episode 445] - Mean score over last 1 times:66.81875085827303
epoch 445 start, epsilon: 0.001 time: 2020-06-29 14:25:00.847192
부족분 점수: 36.840108224582906
추가분 점수: 0
기타 점수: 30.0
[Episode 446] - Mean score over last 1 times:66.8401082245829
epoch 446 start, epsilon: 0.001 time: 2020-06-29 14:25:04.262966
부족분 점수: 35.577724131765606
추가분 점수: 0
기타 점수: 30.0
[Episode 447] - Mean score over last 1 times:65.5777241317656
epoch 447 start, epsilon: 0.001 time: 2020-06-29 14:25:07.699755
부족분 점수: 35.589645486766386
추가분 점수: 0
기타 점수: 30.0
[Episode 448] - Mean score over last 1 times:65.58964548676639
epoch 448 start, epsilon: 0.001 time: 2020-06-29 14:25:11.153316
부족분 점수: 35.589645486766386
추가분 점수: 0
기타 점수: 30.0
[Episode 449] - Mean score over last 1 times:65.58964548676639
epoch 449 start, epsilon: 0.001 time: 2020-06-29 14:25:14.639189
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부족분 점수: 35.589645486766386
추가분 점수: 0
기타 점수: 30.0
[Episode 450] - Mean score over last 1 times:65.58964548676639
epoch 450 start, epsilon: 0.001 time: 2020-06-29 14:25:18.094494
부족분 점수: 35.589645486766386
추가분 점수: 0
기타 점수: 30.0
[Episode 451] - Mean score over last 1 times:65.58964548676639
epoch 451 start, epsilon: 0.001 time: 2020-06-29 14:25:21.587273
부족분 점수: 35.589645486766386
추가분 점수: 0
기타 점수: 30.0
[Episode 452] - Mean score over last 1 times:65.58964548676639
epoch 452 start, epsilon: 0.001 time: 2020-06-29 14:25:25.051785
부족분 점수: 35.589645486766386
추가분 점수: 0
기타 점수: 30.0
[Episode 453] - Mean score over last 1 times:65.58964548676639
epoch 453 start. epsilon: 0.001 time: 2020-06-29 14:25:28.491497
부족분 점수: 35.589645486766386
추가분 점수: 0
기타 점수: 30.0
[Episode 454] - Mean score over last 1 times:65.58964548676639
epoch 454 start, epsilon: 0.001 time: 2020-06-29 14:25:31.907518
부족분 점수: 35.43122556321913
추가분 점수: 0
기타 점수: 30.0
[Episode 455] - Mean score over last 1 times:65.43122556321913
epoch 455 start, epsilon: 0.001 time: 2020-06-29 14:25:35.336401
부족분 점수: 35.43122556321913
추가분 점수: 0
기타 점수: 30.0
[Episode 456] - Mean score over last 1 times:65.43122556321913
epoch 456 start, epsilon: 0.001 time: 2020-06-29 14:25:38.777687
부족분 점수: 32.68133869397493
추가분 점수: 0.9342317845658621
기타 점수: 30.0
[Episode 457] - Mean score over last 1 times:63.61557047854079
epoch 457 start, epsilon: 0.001 time: 2020-06-29 14:25:42.202657
부족분 점수: 32.68133869397493
추가분 점수: 0.9277692765437928
기타 점수: 30.0
[Episode 458] - Mean score over last 1 times:63.60910797051872
epoch 458 start, epsilon: 0.001 time: 2020-06-29 14:25:45.623818
부족분 점수: 32.68133869397493
추가분 점수: 0.923283983849259
기타 점수: 30.0
[Episode 459] - Mean score over last 1 times:63.60462267782419
epoch 459 start, epsilon: 0.001 time: 2020-06-29 14:25:49.120233
부족분 점수: 32.68133869397493
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추가분 점수: 0.9277692765437928
기타 점수: 30.0
[Episode 460] - Mean score over last 1 times:63.60910797051872
epoch 460 start, epsilon: 0.001 time: 2020-06-29 14:25:52.526032
부족분 점수: 32.68133869397493
추가분 점수: 0.9277692765437928
기타 점수: 30.0
[Episode 461] - Mean score over last 1 times:63.60910797051872
epoch 461 start, epsilon: 0.001 time: 2020-06-29 14:25:55.973781
부족분 점수: 32.68133869397493
추가분 점수: 1.8921151933760205
기타 점수: 30.0
[Episode 462] - Mean score over last 1 times:64.57345388735095
epoch 462 start, epsilon: 0.001 time: 2020-06-29 14:25:59.383487
부족분 점수: 32.68133869397493
추가분 점수: 1.229656509526793
기타 점수: 30.0
[Episode 463] - Mean score over last 1 times:63.91099520350172
epoch 463 start, epsilon: 0.001 time: 2020-06-29 14:26:02.780758
부족분 점수: 32.68133869397493
추가분 점수: 1.9782678352594996
기타 점수: 30.0
[Episode 464] - Mean score over last 1 times:64.65960652923442
epoch 464 start, epsilon: 0.001 time: 2020-06-29 14:26:06.243902
부족분 점수: 32.68133869397493
추가분 점수: 1.439833024227033
기타 점수: 30.0
[Episode 465] - Mean score over last 1 times:64.12117171820196
epoch 465 start. epsilon: 0.001 time: 2020-06-29 14:26:09.764267
부족분 점수: 32.68133869397493
추가분 점수: 1.6982891066064987
기타 점수: 30.0
[Episode 466] - Mean score over last 1 times:64.37962780058143
epoch 466 start, epsilon: 0.001 time: 2020-06-29 14:26:13.189835
부족분 점수: 32.68133869397493
추가분 점수: 1.6783670339588874
기타 점수: 30.0
[Episode 467] - Mean score over last 1 times:64.35970572793381
epoch 467 start, epsilon: 0.001 time: 2020-06-29 14:26:16.620134
부족분 점수: 32.68133869397493
추가분 점수: 1.7160508656768503
기타 점수: 30.0
[Episode 468] - Mean score over last 1 times:64.39738955965177
epoch 468 start, epsilon: 0.001 time: 2020-06-29 14:26:20.073281
부족분 점수: 25.162319977708712
추가분 점수: 0.9477570925226786
기타 점수: 30.0
[Episode 469] - Mean score over last 1 times:56.11007707023139
epoch 469 start, epsilon: 0.001 time: 2020-06-29 14:26:23.508545
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                                             Untitled - Jupyter Notebook
  부족분 점수: 25.03395765945139
  추가분 점수: 1.5421062995935886
  기타 점수: 30.0
  [Episode 470] - Mean score over last 1 times:56.57606395904497
  epoch 470 start, epsilon: 0.001 time: 2020-06-29 14:26:27.004568
  부족분 점수: 25.03395765945139
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 471] - Mean score over last 1 times:55.03395765945139
  epoch 471 start, epsilon: 0.001 time: 2020-06-29 14:26:30.453930
  부족분 점수: 25.044882112069033
  추가분 점수: 1.678564878376374
  기타 점수: 30.0
  [Episode 472] - Mean score over last 1 times:56.72344699044541
  epoch 472 start, epsilon: 0.001 time: 2020-06-29 14:26:33.869876
  부족분 점수: 25.03395765945139
  추가분 점수: 1.6487647165986252
  기타 점수: 30.0
  [Episode 473] - Mean score over last 1 times: 56.68272237605001
  epoch 473 start, epsilon: 0.001 time: 2020-06-29 14:26:37.309641
  부족분 점수: 25.03395765945139
  추가분 점수: 1.642667176228687
  기타 점수: 30.0
  [Episode 474] - Mean score over last 1 times:56.67662483568007
  epoch 474 start, epsilon: 0.001 time: 2020-06-29 14:26:40.727810
  부족분 점수: 25.03395765945139
  추가분 점수: 1.8708137396189284
  기타 점수: 30.0
  [Episode 475] - Mean score over last 1 times:56.90477139907031
  epoch 475 start, epsilon: 0.001 time: 2020-06-29 14:26:44.142543
  부족분 점수: 25.03395765945139
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 476] - Mean score over last 1 times:55.03395765945139
  epoch 476 start, epsilon: 0.001 time: 2020-06-29 14:26:47.615228
  부족분 점수: 25.03395765945139
  추가분 점수: 1.7227529989250656
  기타 점수: 30.0
  [Episode 477] - Mean score over last 1 times:56.756710658376456
  epoch 477 start, epsilon: 0.001 time: 2020-06-29 14:26:51.083157
  부족분 점수: 25.03395765945139
  추가분 점수: 1.7227529989250656
  기타 점수: 30.0
  [Episode 478] - Mean score over last 1 times:56.756710658376456
  epoch 478 start, epsilon: 0.001 time: 2020-06-29 14:26:54.485356
  부족분 점수: 25.03395765945139
  추가분 점수: 1.9919627241455906
  기타 점수: 30.0
  [Episode 479] - Mean score over last 1 times:57.02592038359698
  epoch 479 start, epsilon: 0.001 time: 2020-06-29 14:26:57.970430
  부족분 점수: 25.03395765945139
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추가분 점수: 0.6051741230561558
기타 점수: 30.0
[Episode 480] - Mean score over last 1 times:55.63913178250755
epoch 480 start, epsilon: 0.001 time: 2020-06-29 14:27:01.376651
부족분 점수: 25.03395765945139
추가분 점수: 1.3924105775490214
기타 점수: 30.0
[Episode 481] - Mean score over last 1 times:56.42636823700041
epoch 481 start, epsilon: 0.001 time: 2020-06-29 14:27:04.796153
부족분 점수: 25.03395765945139
추가분 점수: 1.4225812367918111
기타 점수: 30.0
[Episode 482] - Mean score over last 1 times:56.4565388962432
epoch 482 start, epsilon: 0.001 time: 2020-06-29 14:27:08.247166
부족분 점수: 33.25057302686291
추가분 점수: 2.8875491039706214
기타 점수: 30.0
[Episode 483] - Mean score over last 1 times:66.13812213083352
epoch 483 start, epsilon: 0.001 time: 2020-06-29 14:27:11.676559
부족분 점수: 32.87832752651776
추가분 점수: 3.8448051862272026
기타 점수: 30.0
[Episode 484] - Mean score over last 1 times:66.72313271274496
epoch 484 start, epsilon: 0.001 time: 2020-06-29 14:27:15.089281
부족분 점수: 32.513089527978245
추가분 점수: 3.8618302513330693
기타 점수: 30.0
[Episode 485] - Mean score over last 1 times:66.37491977931131
epoch 485 start, epsilon: 0.001 time: 2020-06-29 14:27:18.587389
부족분 점수: 32.514889789292624
추가분 점수: 3.8580497025728677
기타 점수: 30.0
[Episode 486] - Mean score over last 1 times:66.3729394918655
epoch 486 start, epsilon: 0.001 time: 2020-06-29 14:27:22.000958
부족분 점수: 32.52027214052606
추가분 점수: 3.8550046189298404
기타 점수: 30.0
[Episode 487] - Mean score over last 1 times:66.3752767594559
epoch 487 start, epsilon: 0.001 time: 2020-06-29 14:27:25.426015
부족분 점수: 31.863353407578245
추가분 점수: 3.7977556947088598
기타 점수: 30.0
[Episode 488] - Mean score over last 1 times:65.6611091022871
epoch 488 start, epsilon: 0.001 time: 2020-06-29 14:27:28.885455
부족분 점수: 31.86529498633368
추가분 점수: 3.8165939240258995
기타 점수: 30.0
[Episode 489] - Mean score over last 1 times:65.68188891035959
epoch 489 start, epsilon: 0.001 time: 2020-06-29 14:27:32.321479
부족분 점수: 31.863353407578245
추가분 점수: 3.8044652010409563
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기타 점수: 30.0

[Episode 490] - Mean score over last 1 times:65.6678186086192

epoch 490 start, epsilon: 0.001 time: 2020-06-29 14:27:35.788577

부족분 점수: 31.863353407578245 추가분 점수: 3.7977556947088598

기타 점수: 30.0

[Episode 491] - Mean score over last 1 times:65.6611091022871

epoch 491 start, epsilon: 0.001 time: 2020-06-29 14:27:39.217233

부족분 점수: 24.32234600469481 추가분 점수: 3.850514410846053

기타 점수: 30.0

[Episode 492] - Mean score over last 1 times:58.17286041554087

epoch 492 start, epsilon: 0.001 time: 2020-06-29 14:27:42.663875

부족분 점수: 24.30903912434798 추가분 점수: 3.8354438273924196

기타 점수: 30.0

[Episode 493] - Mean score over last 1 times:58.1444829517404

epoch 493 start, epsilon: 0.001 time: 2020-06-29 14:27:46.176677

부족분 점수: 24.29468004348891 추가분 점수: 3.8728235194002725

기타 점수: 30.0

[Episode 494] - Mean score over last 1 times:58.16750356288918

epoch 494 start, epsilon: 0.001 time: 2020-06-29 14:27:49.594073

부족분 점수: 24.292885926411095 추가분 점수: 3.869365543059886

기타 점수: 30.0

[Episode 495] - Mean score over last 1 times:58.16225146947098

epoch 495 start, epsilon: 0.001 time: 2020-06-29 14:27:52.979017

부족분 점수: 25.03395765945139 추가분 점수: 3.3031133153901138

기타 점수: 30.0

[Episode 496] - Mean score over last 1 times:58.3370709748415

epoch 496 start, epsilon: 0.001 time: 2020-06-29 14:27:56.364199

부족분 점수: 24.29647416056672 추가분 점수: 3.8618302513330693

기타 점수: 30.0

[Episode 497] - Mean score over last 1 times:58.15830441189979

epoch 497 start, epsilon: 0.001 time: 2020-06-29 14:27:59.782498

부족분 점수: 24.282121223944213 추가분 점수: 3.891971418240334

기타 점수: 30.0

[Episode 498] - Mean score over last 1 times:58.17409264218455

epoch 498 start, epsilon: 0.001 time: 2020-06-29 14:28:03.247554

부족분 점수: 24.292885926411095 추가분 점수: 5.2724062642949505

기타 점수: 30.0

[Episode 499] - Mean score over last 1 times:59.565292190706046

epoch 499 start, epsilon: 0.001 time: 2020-06-29 14:28:06.778225

부족분 점수: 24.29647416056672 추가분 점수: 5.248618852422505

[Episode 500] - Mean score over last 1 times:59.54509301298923

epoch 500 start, epsilon: 0.001 time: 2020-06-29 14:28:10.184825

부족분 점수: 24.402370077813686 추가분 점수: 5.026237426203879

기타 점수: 30.0

[Episode 501] - Mean score over last 1 times:59.42860750401756

epoch 501 start, epsilon: 0.001 time: 2020-06-29 14:28:13.621096

부족분 점수: 24.230147126816735 추가분 점수: 5.424149860387583

기타 점수: 30.0

[Episode 502] - Mean score over last 1 times:59.65429698720432

epoch 502 start, epsilon: 0.001 time: 2020-06-29 14:28:17.019509

부족분 점수: 25.03395765945139 추가분 점수: 3.0536413357201653

기타 점수: 30.0

[Episode 503] - Mean score over last 1 times:58.087598995171554

epoch 503 start, epsilon: 0.001 time: 2020-06-29 14:28:20.458093

부족분 점수: 25.03395765945139 추가분 점수: 3.0536413357201653

기타 점수: 30.0

[Episode 504] - Mean score over last 1 times:58.087598995171554

epoch 504 start, epsilon: 0.001 time: 2020-06-29 14:28:23.873162

부족분 점수: 28.77249520211927 추가분 점수: 2.492987736411023

기타 점수: 30.0

[Episode 505] - Mean score over last 1 times:61.2654829385303

epoch 505 start, epsilon: 0.001 time: 2020-06-29 14:28:27.294728

부족분 점수: 28.77249520211927 추가분 점수: 2.4885024437164893

기타 점수: 30.0

[Episode 506] - Mean score over last 1 times:61.26099764583576

epoch 506 start, epsilon: 0.001 time: 2020-06-29 14:28:30.745915

부족분 점수: 28.77249520211927 추가분 점수: 2.3090139329780524

기타 점수: 30.0

[Episode 507] - Mean score over last 1 times:61.08150913509732

epoch 507 start, epsilon: 0.001 time: 2020-06-29 14:28:34.201099

부족분 점수: 30.173129225890705 추가분 점수: 1.002564297131594

기타 점수: 30.0

[Episode 508] - Mean score over last 1 times:61.175693523022304

epoch 508 start, epsilon: 0.001 time: 2020-06-29 14:28:37.639296

부족분 점수: 30.173129225890705 추가분 점수: 0.9361518584933171

기타 점수: 30.0

[Episode 509] - Mean score over last 1 times:61.10928108438402

epoch 509 start, epsilon: 0.001 time: 2020-06-29 14:28:41.073877

부족분 점수: 30.173129225890705 추가분 점수: 0.9675642679464702

[Episode 510] - Mean score over last 1 times:61.140693493837176

epoch 510 start, epsilon: 0.001 time: 2020-06-29 14:28:44.540412

부족분 점수: 30.173129225890705 추가분 점수: 1.0528155503254455

기타 점수: 30.0

[Episode 511] - Mean score over last 1 times:61.22594477621615

epoch 511 start, epsilon: 0.001 time: 2020-06-29 14:28:47.960757

부족분 점수: 30.173129225890705 추가분 점수: 0.5861761435883506

기타 점수: 30.0

[Episode 512] - Mean score over last 1 times:60.75930536947905

epoch 512 start, epsilon: 0.001 time: 2020-06-29 14:28:51.359914

부족분 점수: 30.173129225890705 추가분 점수: 0.4246441642194676

기타 점수: 30.0

[Episode 513] - Mean score over last 1 times:60.59777339011018

epoch 513 start, epsilon: 0.001 time: 2020-06-29 14:28:54.789170

부족분 점수: 30.173129225890705 추가분 점수: 0.4425853349976028

기타 점수: 30.0

[Episode 514] - Mean score over last 1 times:60.61571456088831

epoch 514 start, epsilon: 0.001 time: 2020-06-29 14:28:58.225692

부족분 점수: 30.173129225890705 추가분 점수: 0.4246441642194676

기타 점수: 30.0

[Episode 515] - Mean score over last 1 times:60.59777339011018

epoch 515 start, epsilon: 0.001 time: 2020-06-29 14:29:01.669811

부족분 점수: 30.395396983732827 추가분 점수: 0.2733466397016615

기타 점수: 30.0

[Episode 516] - Mean score over last 1 times:60.66874362343449

epoch 516 start, epsilon: 0.001 time: 2020-06-29 14:29:05.133381

부족분 점수: 30.173129225890705 추가분 점수: 0.5604981501239759

기타 점수: 30.0

[Episode 517] - Mean score over last 1 times:60.73362737601468

epoch 517 start, epsilon: 0.001 time: 2020-06-29 14:29:08.571814

부족분 점수: 30.1397967425101 추가분 점수: 0.5548903054084953

기타 점수: 30.0

[Episode 518] - Mean score over last 1 times:60.69468704791859

epoch 518 start, epsilon: 0.001 time: 2020-06-29 14:29:12.044082

부족분 점수: 30.173129225890705 추가분 점수: 0.4503012672795137

기타 점수: 30.0

[Episode 519] - Mean score over last 1 times:60.62343049317022

epoch 519 start, epsilon: 0.001 time: 2020-06-29 14:29:15.465922

부족분 점수: 30.173129225890705 추가분 점수: 0.41888885782636054

기타 점수: 30.0

[Episode 520] - Mean score over last 1 times:60.592018083717065

```
epoch 520 start, epsilon: 0.001 time: 2020-06-29 14:29:18.921396
부족분 점수: 30.173129225890705
추가분 점수: 0.7089404479087014
기타 점수: 30.0
[Episode 521] - Mean score over last 1 times:60.88206967379941
epoch 521 start, epsilon: 0.001 time: 2020-06-29 14:29:22.380188
부족분 점수: 31.64671069831399
추가분 점수: 0.5337682633591823
기타 점수: 30.0
[Episode 522] - Mean score over last 1 times:62.180478961673174
epoch 522 start, epsilon: 0.001 time: 2020-06-29 14:29:25.847670
부족분 점수: 31.64671069831399
추가분 점수: 0.4136810029114457
기타 점수: 30.0
[Episode 523] - Mean score over last 1 times:62.060391701225434
epoch 523 start, epsilon: 0.001 time: 2020-06-29 14:29:29.295853
부족분 점수: 31.64671069831399
추가분 점수: 0.46951245175622214
기타 점수: 30.0
[Episode 524] - Mean score over last 1 times:62.11622315007021
epoch 524 start, epsilon: 0.001 time: 2020-06-29 14:29:32.717839
부족분 점수: 31.64671069831399
추가분 점수: 0.45155592038666814
기타 점수: 30.0
[Episode 525] - Mean score over last 1 times:62.098266618700656
epoch 525 start, epsilon: 0.001 time: 2020-06-29 14:29:36.236577
부족분 점수: 31.63123336639957
추가분 점수: 0.432183142488225
기타 점수: 30.0
[Episode 526] - Mean score over last 1 times:62.0634165088878
epoch 526 start, epsilon: 0.001 time: 2020-06-29 14:29:39.684056
부족분 점수: 25.123219592250027
추가분 점수: 0
기타 점수: 30.0
[Episode 527] - Mean score over last 1 times:55.123219592250024
epoch 527 start, epsilon: 0.001 time: 2020-06-29 14:29:43.054877
부족분 점수: 25.125267159086263
추가분 점수: 0
기타 점수: 30.0
[Episode 528] - Mean score over last 1 times:55.12526715908626
epoch 528 start, epsilon: 0.001 time: 2020-06-29 14:29:46.491640
부족분 점수: 35.95263623078121
추가분 점수: 0
기타 점수: 30.0
[Episode 529] - Mean score over last 1 times:65.95263623078121
epoch 529 start, epsilon: 0.001 time: 2020-06-29 14:29:49.964229
부족분 점수: 35.95263623078121
추가분 점수: 0.1537361720115893
기타 점수: 30.0
[Episode 530] - Mean score over last 1 times:66.1063724027928
```

```
epoch 530 start, epsilon: 0.001 time: 2020-06-29 14:29:53.390595
부족분 점수: 35.95263623078121
추가분 점수: 0.1537361720115893
기타 점수: 30.0
[Episode 531] - Mean score over last 1 times:66.1063724027928
epoch 531 start, epsilon: 0.001 time: 2020-06-29 14:29:56.877158
부족분 점수: 35.9094422477092
추가분 점수: 0.15555486603567426
기타 점수: 30.0
[Episode 532] - Mean score over last 1 times:66.06499711374488
epoch 532 start, epsilon: 0.001 time: 2020-06-29 14:30:00.296532
부족분 점수: 35.95263623078121
추가분 점수: 0.21152148808494253
기타 점수: 30.0
[Episode 533] - Mean score over last 1 times:66.16415771886615
epoch 533 start, epsilon: 0.001 time: 2020-06-29 14:30:03.749225
부족분 점수: 35.95263623078121
추가분 점수: 0.19860445954834383
기타 점수: 30.0
[Episode 534] - Mean score over last 1 times:66.15124069032956
epoch 534 start, epsilon: 0.001 time: 2020-06-29 14:30:07.236328
부족분 점수: 35.95263623078121
추가분 점수: 0.15427440713493334
기타 점수: 30.0
[Episode 535] - Mean score over last 1 times:66.10691063791614
epoch 535 start, epsilon: 0.001 time: 2020-06-29 14:30:10.683627
부족분 점수: 35.95263623078121
추가분 점수: 0.21708570872079225
기타 점수: 30.0
[Episode 536] - Mean score over last 1 times:66.16972193950201
epoch 536 start, epsilon: 0.001 time: 2020-06-29 14:30:14.101075
부족분 점수: 35.95263623078121
추가분 점수: 0.19465924524812328
기타 점수: 30.0
[Episode 537] - Mean score over last 1 times:66.14729547602934
epoch 537 start, epsilon: 0.001 time: 2020-06-29 14:30:17.521198
부족분 점수: 35.71662995997337
추가분 점수: 0.1312365921237646
기타 점수: 30.0
[Episode 538] - Mean score over last 1 times:65.84786655209713
epoch 538 start, epsilon: 0.001 time: 2020-06-29 14:30:20.955700
부족분 점수: 35.73845428826239
추가분 점수: 0.2123607908001124
기타 점수: 30.0
[Episode 539] - Mean score over last 1 times:65.9508150790625
epoch 539 start, epsilon: 0.001 time: 2020-06-29 14:30:24.373759
부족분 점수: 35.73845428826239
추가분 점수: 0.16749250326335785
기타 점수: 30.0
[Episode 540] - Mean score over last 1 times:65.90594679152575
epoch 540 start, epsilon: 0.001 time: 2020-06-29 14:30:27.824405
```

```
2020. 6. 29.
                                             Untitled - Jupyter Notebook
  부족분 점수: 35.73845428826239
  추가분 점수: 0.17316977785205578
  기타 점수: 30.0
  [Episode 541] - Mean score over last 1 times:65.91162406611444
  epoch 541 start, epsilon: 0.001 time: 2020-06-29 14:30:31.278670
  부족분 점수: 35.73845428826239
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 542] - Mean score over last 1 times:65.73845428826239
  epoch 542 start, epsilon: 0.001 time: 2020-06-29 14:30:34.749376
  부족분 점수: 35.73845428826239
  추가분 점수: 0.14953597189380385
  기타 점수: 30.0
  [Episode 543] - Mean score over last 1 times:65.88799026015619
  epoch 543 start, epsilon: 0.001 time: 2020-06-29 14:30:38.190392
  부족분 점수: 35.73845428826239
  추가분 점수: 0.5501377384232597
  기타 점수: 30.0
  [Episode 544] - Mean score over last 1 times:66.28859202668565
  epoch 544 start, epsilon: 0.001 time: 2020-06-29 14:30:41.602374
  부족분 점수: 35.73299206195357
  추가분 점수: 0.6542733318935334
  기타 점수: 30.0
  [Episode 545] - Mean score over last 1 times:66.3872653938471
  epoch 545 start, epsilon: 0.001 time: 2020-06-29 14:30:45.050508
  부족분 점수: 39.074530511203555
  추가분 점수: 2.1372130910333165
  기타 점수: 30.0
  [Episode 546] - Mean score over last 1 times:71.21174360223688
  epoch 546 start, epsilon: 0.001 time: 2020-06-29 14:30:48.491380
  부족분 점수: 39.00464442842164
  추가분 점수: 2.4845412544011936
  기타 점수: 30.0
  [Episode 547] - Mean score over last 1 times:71.48918568282284
  epoch 547 start, epsilon: 0.001 time: 2020-06-29 14:30:51.976948
  부족분 점수: 38.92477856939439
  추가분 점수: 2.8368480926600026
  기타 점수: 30.0
  [Episode 548] - Mean score over last 1 times:71.7616266620544
  epoch 548 start, epsilon: 0.001 time: 2020-06-29 14:30:55.417816
  부족분 점수: 38.18350407654736
  추가분 점수: 4.760468473461352
  기타 점수: 30.0
  [Episode 549] - Mean score over last 1 times:72.94397255000871
  epoch 549 start, epsilon: 0.001 time: 2020-06-29 14:30:58.917618
  부족분 점수: 38.187540839972435
  추가분 점수: 4.805648888215755
  기타 점수: 30.0
  [Episode 550] - Mean score over last 1 times:72.99318972818818
 epoch 550 start, epsilon: 0.001 time: 2020-06-29 14:31:02.390854
```

2020. 6. 29. 부족분 점수: 38.18484966435572 추가분 점수: 4.879566511821665 기타 점수: 30.0 [Episode 551] - Mean score over last 1 times:73.06441617617739 epoch 551 start, epsilon: 0.001 time: 2020-06-29 14:31:05.842282 부족분 점수: 38.18484966435572 추가분 점수: 4.879566511821665 기타 점수: 30.0 [Episode 552] - Mean score over last 1 times:73.06441617617739 epoch 552 start, epsilon: 0.001 time: 2020-06-29 14:31:09.267945 부족분 점수: 38.32349589856848 추가분 점수: 4.472870891464211 기타 점수: 30.0 [Episode 553] - Mean score over last 1 times:72.79636679003269 epoch 553 start, epsilon: 0.001 time: 2020-06-29 14:31:12.721744 부족분 점수: 37.91355397082041 추가분 점수: 5.538325136409732 기타 점수: 30.0 [Episode 554] - Mean score over last 1 times:73.45187910723014 epoch 554 start. epsilon: 0.001 time: 2020-06-29 14:31:16.144872 부족분 점수: 37.85791790869849 추가분 점수: 5.65516086686576 기타 점수: 30.0 [Episode 555] - Mean score over last 1 times:73.51307877556425 epoch 555 start, epsilon: 0.001 time: 2020-06-29 14:31:19.540976 부족분 점수: 37.905203953324694 추가분 점수: 5.65516086686576 기타 점수: 30.0 [Episode 556] - Mean score over last 1 times:73.56036482019046 epoch 556 start, epsilon: 0.001 time: 2020-06-29 14:31:22.923760 부족분 점수: 36.352254305036155 추가분 점수: 5.047050413153828 기타 점수: 30.0 [Episode 557] - Mean score over last 1 times:71.39930471818998 부족분 점수: 36.359074407626466 추가분 점수: 5.071823974995415 기타 점수: 30.0 부족분 점수: 36.4735968330147

epoch 557 start, epsilon: 0.001 time: 2020-06-29 14:31:26.432066 [Episode 558] - Mean score over last 1 times:71.43089838262188

epoch 558 start, epsilon: 0.001 time: 2020-06-29 14:31:29.853755

추가분 점수: 5.03520924044026

기타 점수: 30.0

[Episode 559] - Mean score over last 1 times:71.50880607345496

epoch 559 start, epsilon: 0.001 time: 2020-06-29 14:31:33.329269

부족분 점수: 36.36041999543483 추가분 점수: 5.043103355582639 기타 점수: 30.0

[Episode 560] - Mean score over last 1 times:71.40352335101747

epoch 560 start, epsilon: 0.001 time: 2020-06-29 14:31:36.744438

부족분 점수: 36.34692417981354

```
추가분 점수: 5.479699288773896
기타 점수: 30.0
[Episode 561] - Mean score over last 1 times:71.82662346858743
epoch 561 start, epsilon: 0.001 time: 2020-06-29 14:31:40.147823
부족분 점수: 35.590362826385686
추가분 점수: 5.4876069212367256
기타 점수: 30.0
[Episode 562] - Mean score over last 1 times:71.0779697476224
epoch 562 start, epsilon: 0.001 time: 2020-06-29 14:31:43.571794
부족분 점수: 35.59650706295354
추가분 점수: 5.487891399389815
기타 점수: 30.0
[Episode 563] - Mean score over last 1 times:71.08439846234336
epoch 563 start, epsilon: 0.001 time: 2020-06-29 14:31:46.984335
부족분 점수: 27.180024288167154
추가분 점수: 5.479699288773896
기타 점수: 30.0
[Episode 564] - Mean score over last 1 times:62.65972357694105
epoch 564 start, epsilon: 0.001 time: 2020-06-29 14:31:50.447140
부족분 점수: 27.180024288167154
추가분 점수: 5.479699288773896
기타 점수: 30.0
[Episode 565] - Mean score over last 1 times:62.65972357694105
epoch 565 start, epsilon: 0.001 time: 2020-06-29 14:31:53.902433
부족분 점수: 25.03395765945139
추가분 점수: 3.455046153969039
기타 점수: 30.0
[Episode 566] - Mean score over last 1 times:58.489003813420425
epoch 566 start. epsilon: 0.001 time: 2020-06-29 14:31:57.335353
부족분 점수: 27.180024288167154
추가분 점수: 5.479699288773896
기타 점수: 30.0
[Episode 567] - Mean score over last 1 times:62.65972357694105
epoch 567 start, epsilon: 0.001 time: 2020-06-29 14:32:00.777977
부족분 점수: 27.19213918661982
추가분 점수: 5.444162253312741
기타 점수: 30.0
[Episode 568] - Mean score over last 1 times:62.63630143993256
epoch 568 start, epsilon: 0.001 time: 2020-06-29 14:32:04.257027
부족분 점수: 27.06397501999181
추가분 점수: 5.771069432023699
기타 점수: 30.0
[Episode 569] - Mean score over last 1 times:62.83504445201551
epoch 569 start, epsilon: 0.001 time: 2020-06-29 14:32:07.839837
부족분 점수: 27.064071791717755
추가분 점수: 5.752218299809866
기타 점수: 30.0
[Episode 570] - Mean score over last 1 times:62.81629009152762
epoch 570 start, epsilon: 0.001 time: 2020-06-29 14:32:11.314552
부족분 점수: 27.071157632539634
추가분 점수: 5.755985945673274
```

기타 점수: 30.0

[Episode 571] - Mean score over last 1 times:62.82714357821291

epoch 571 start, epsilon: 0.001 time: 2020-06-29 14:32:14.749280

부족분 점수: 27.071157632539634 추가분 점수: 5.755985945673274

기타 점수: 30.0

[Episode 572] - Mean score over last 1 times:62.82714357821291

epoch 572 start, epsilon: 0.001 time: 2020-06-29 14:32:18.189993

부족분 점수: 26.8149859773161 추가분 점수: 6.268568881346496

기타 점수: 30.0

[Episode 573] - Mean score over last 1 times:63.083554858662595

epoch 573 start, epsilon: 0.001 time: 2020-06-29 14:32:21.622380

부족분 점수: 26.87277866647333 추가분 점수: 6.132882018676636

기타 점수: 30.0

[Episode 574] - Mean score over last 1 times:63.00566068514996

epoch 574 start, epsilon: 0.001 time: 2020-06-29 14:32:25.008313

부족분 점수: 26.886581693923013 추가분 점수: 6.0689026977192295

기타 점수: 30.0

[Episode 575] - Mean score over last 1 times:62.955484391642244

epoch 575 start, epsilon: 0.001 time: 2020-06-29 14:32:28.426918

부족분 점수: 26.877325401533536 추가분 점수: 6.132882018676636

기타 점수: 30.0

[Episode 576] - Mean score over last 1 times:63.01020742021017

epoch 576 start, epsilon: 0.001 time: 2020-06-29 14:32:31.863354

부족분 점수: 26.07377292683474 추가분 점수: 8.143685429833894

기타 점수: 30.0

[Episode 577] - Mean score over last 1 times:64.21745835666863

epoch 577 start, epsilon: 0.001 time: 2020-06-29 14:32:35.282738

부족분 점수: 26.07825975558842 추가분 점수: 8.10061187379861

기타 점수: 30.0

[Episode 578] - Mean score over last 1 times:64.17887162938703

epoch 578 start, epsilon: 0.001 time: 2020-06-29 14:32:38.679363

부족분 점수: 26.165082426469617 추가분 점수: 8.140607781737055

기타 점수: 30.0

[Episode 579] - Mean score over last 1 times:64.30569020820667

epoch 579 start, epsilon: 0.001 time: 2020-06-29 14:32:42.144834

부족분 점수: 26.16463389720016 추가분 점수: 8.144913662723807

기타 점수: 30.0

[Episode 580] - Mean score over last 1 times:64.30954755992397

epoch 580 start, epsilon: 0.001 time: 2020-06-29 14:32:45.571923

부족분 점수: 25.532195338797813 추가분 점수: 5.834951059619677

[Episode 581] - Mean score over last 1 times:61.36714639841749

epoch 581 start, epsilon: 0.001 time: 2020-06-29 14:32:49.075497

부족분 점수: 26.186186343021056 추가분 점수: 6.964486619849632

기타 점수: 30.0

[Episode 582] - Mean score over last 1 times:63.150672962870686

epoch 582 start, epsilon: 0.001 time: 2020-06-29 14:32:52.515111

부족분 점수: 26.186186343021056 추가분 점수: 6.995899029302786

기타 점수: 30.0

[Episode 583] - Mean score over last 1 times:63.18208537232384

epoch 583 start, epsilon: 0.001 time: 2020-06-29 14:32:55.947037

부족분 점수: 26.186186343021056 추가분 점수: 6.964486619849632

기타 점수: 30.0

[Episode 584] - Mean score over last 1 times:63.150672962870686

epoch 584 start, epsilon: 0.001 time: 2020-06-29 14:32:59.397187

부족분 점수: 26.186186343021056 추가분 점수: 5.750487468368702

기타 점수: 30.0

[Episode 585] - Mean score over last 1 times:61.93667381138976

epoch 585 start, epsilon: 0.001 time: 2020-06-29 14:33:02.830513

부족분 점수: 26.186186343021056 추가분 점수: 5.723575712201501

기타 점수: 30.0

[Episode 586] - Mean score over last 1 times:61.90976205522256

epoch 586 start, epsilon: 0.001 time: 2020-06-29 14:33:06.274646

부족분 점수: 31.4347299285456 추가분 점수: 0.49308481534879434

기타 점수: 30.0

[Episode 587] - Mean score over last 1 times:61.927814743894395

epoch 587 start, epsilon: 0.001 time: 2020-06-29 14:33:09.709038

부족분 점수: 26.2223021655669 추가분 점수: 5.044731578273119

기타 점수: 30.0

[Episode 588] - Mean score over last 1 times:61.26703374384002

epoch 588 start, epsilon: 0.001 time: 2020-06-29 14:33:13.138601

부족분 점수: 26.202099915731793 추가분 점수: 5.053760533909582

기타 점수: 30.0

[Episode 589] - Mean score over last 1 times:61.255860449641375

epoch 589 start, epsilon: 0.001 time: 2020-06-29 14:33:16.586968

부족분 점수: 26.186186343021056 추가분 점수: 5.053760533909582

기타 점수: 30.0

[Episode 590] - Mean score over last 1 times:61.23994687693064

epoch 590 start, epsilon: 0.001 time: 2020-06-29 14:33:20.067026

부족분 점수: 24.131702632467437 추가분 점수: 4.220756890070083

기타 점수: 30.0

[Episode 591] - Mean score over last 1 times:58.35245952253752

```
epoch 591 start, epsilon: 0.001 time: 2020-06-29 14:33:23.489595
부족분 점수: 24.131702632467437
추가분 점수: 4.261139884912303
기타 점수: 30.0
[Episode 592] - Mean score over last 1 times:58.39284251737974
epoch 592 start, epsilon: 0.001 time: 2020-06-29 14:33:26.962642
부족분 점수: 24.131702632467437
추가분 점수: 3.9156494627018734
기타 점수: 30.0
[Episode 593] - Mean score over last 1 times:58.04735209516931
epoch 593 start, epsilon: 0.001 time: 2020-06-29 14:33:30.365763
부족분 점수: 24.131702632467437
추가분 점수: 3.9156494627018734
기타 점수: 30.0
[Episode 594] - Mean score over last 1 times:58.04735209516931
epoch 594 start, epsilon: 0.001 time: 2020-06-29 14:33:33.807412
부족분 점수: 24.131702632467437
추가분 점수: 3.9156494627018734
기타 점수: 30.0
[Episode 595] - Mean score over last 1 times:58.04735209516931
epoch 595 start, epsilon: 0.001 time: 2020-06-29 14:33:37.234025
부족분 점수: 24.131702632467437
추가분 점수: 3.9206729905197513
기타 점수: 30.0
[Episode 596] - Mean score over last 1 times:58.052375622987185
epoch 596 start, epsilon: 0.001 time: 2020-06-29 14:33:40.686934
부족분 점수: 24.131702632467437
추가분 점수: 3.3786401145531464
기타 점수: 30.0
[Episode 597] - Mean score over last 1 times:57.51034274702059
epoch 597 start, epsilon: 0.001 time: 2020-06-29 14:33:44.147376
부족분 점수: 24.131702632467437
추가분 점수: 3.39516503880239
기타 점수: 30.0
[Episode 598] - Mean score over last 1 times:57.52686767126983
epoch 598 start, epsilon: 0.001 time: 2020-06-29 14:33:47.545724
부족분 점수: 24.131702632467437
추가분 점수: 3.387626060533633
기타 점수: 30.0
[Episode 599] - Mean score over last 1 times:57.51932869300107
epoch 599 start, epsilon: 0.001 time: 2020-06-29 14:33:50.976556
부족분 점수: 24.131702632467437
추가분 점수: 3.3786517886026246
기타 점수: 30.0
[Episode 600] - Mean score over last 1 times:57.51035442107006
epoch 600 start, epsilon: 0.001 time: 2020-06-29 14:33:54.427479
부족분 점수: 24.131702632467437
추가분 점수: 3.3786517886026246
기타 점수: 30.0
[Episode 601] - Mean score over last 1 times:57.51035442107006
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epoch 601 start, epsilon: 0.001 time: 2020-06-29 14:33:57.806420
부족분 점수: 24.131702632467437
추가분 점수: 3.3786517886026246
기타 점수: 30.0
[Episode 602] - Mean score over last 1 times:57.51035442107006
epoch 602 start, epsilon: 0.001 time: 2020-06-29 14:34:01.222516
부족분 점수: 24.100744896520304
추가분 점수: 3.382406531569242
기타 점수: 30.0
[Episode 603] - Mean score over last 1 times:57.48315142808954
epoch 603 start, epsilon: 0.001 time: 2020-06-29 14:34:04.662932
부족분 점수: 24.19535231513298
추가분 점수: 3.394701148941517
기타 점수: 30.0
[Episode 604] - Mean score over last 1 times:57.5900534640745
epoch 604 start, epsilon: 0.001 time: 2020-06-29 14:34:08.150700
부족분 점수: 24.19535231513298
추가분 점수: 3.354318154099296
기타 점수: 30.0
[Episode 605] - Mean score over last 1 times:57.549670469232275
epoch 605 start, epsilon: 0.001 time: 2020-06-29 14:34:11.609054
부족분 점수: 24.19535231513298
추가분 점수: 3.3318916906266294
기타 점수: 30.0
[Episode 606] - Mean score over last 1 times:57.52724400575961
epoch 606 start, epsilon: 0.001 time: 2020-06-29 14:34:15.048398
부족분 점수: 24.19535231513298
추가분 점수: 2.9415176202880233
기타 점수: 30.0
[Episode 607] - Mean score over last 1 times:57.136869935421004
epoch 607 start, epsilon: 0.001 time: 2020-06-29 14:34:18.488701
부족분 점수: 24.19535231513298
추가분 점수: 2.9190757962239355
기타 점수: 30.0
[Episode 608] - Mean score over last 1 times:57.114428111356915
epoch 608 start, epsilon: 0.001 time: 2020-06-29 14:34:21.965820
부족분 점수: 24.19535231513298
추가분 점수: 2.963959444352111
기타 점수: 30.0
[Episode 609] - Mean score over last 1 times:57.15931175948509
epoch 609 start, epsilon: 0.001 time: 2020-06-29 14:34:25.401165
부족분 점수: 24.198570359035394
추가분 점수: 2.9170162481263917
기타 점수: 30.0
[Episode 610] - Mean score over last 1 times:57.11558660716179
epoch 610 start, epsilon: 0.001 time: 2020-06-29 14:34:29.222121
부족분 점수: 24.19535231513298
추가분 점수: 2.9190757962239355
기타 점수: 30.0
[Episode 611] - Mean score over last 1 times:57.114428111356915
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epoch 611 start, epsilon: 0.001 time: 2020-06-29 14:34:32.696964
부족분 점수: 24.19535231513298
추가분 점수: 2.914590503529404
기타 점수: 30.0
[Episode 612] - Mean score over last 1 times:57.10994281866238
epoch 612 start, epsilon: 0.001 time: 2020-06-29 14:34:36.129961
부족분 점수: 24.19535231513298
추가분 점수: 3.0806077755928185
기타 점수: 30.0
[Episode 613] - Mean score over last 1 times:57.275960090725796
epoch 613 start, epsilon: 0.001 time: 2020-06-29 14:34:39.540324
부족분 점수: 24.19535231513298
추가분 점수: 3.1233255803308246
기타 점수: 30.0
[Episode 614] - Mean score over last 1 times:57.31867789546381
epoch 614 start, epsilon: 0.001 time: 2020-06-29 14:34:42.991331
부족분 점수: 20.640759390774367
추가분 점수: 2.393636045532479
기타 점수: 30.0
[Episode 615] - Mean score over last 1 times:53.034395436306845
epoch 615 start, epsilon: 0.001 time: 2020-06-29 14:34:46.421934
부족분 점수: 24.19535231513298
추가분 점수: 3.07845729279407
기타 점수: 30.0
[Episode 616] - Mean score over last 1 times:57.27380960792705
epoch 616 start, epsilon: 0.001 time: 2020-06-29 14:34:49.872554
부족분 점수: 24.42751229384934
추가분 점수: 2.9196564265795977
기타 점수: 30.0
[Episode 617] - Mean score over last 1 times: 57.34716872042894
epoch 617 start, epsilon: 0.001 time: 2020-06-29 14:34:53.346155
부족분 점수: 24.42751229384934
추가분 점수: 2.933127665254618
기타 점수: 30.0
[Episode 618] - Mean score over last 1 times:57.360639959103956
epoch 618 start, epsilon: 0.001 time: 2020-06-29 14:34:56.791446
부족분 점수: 24.42751229384934
추가분 점수: 2.9420982506436855
기타 점수: 30.0
[Episode 619] - Mean score over last 1 times:57.36961054449303
epoch 619 start, epsilon: 0.001 time: 2020-06-29 14:35:00.238856
부족분 점수: 20.640759390774367
추가분 점수: 2.2157739142135546
기타 점수: 30.0
[Episode 620] - Mean score over last 1 times:52.85653330498792
epoch 620 start, epsilon: 0.001 time: 2020-06-29 14:35:03.679035
부족분 점수: 20.640759390774367
추가분 점수: 2.2477128847405736
기타 점수: 30.0
[Episode 621] - Mean score over last 1 times:52.88847227551494
epoch 621 start, epsilon: 0.001 time: 2020-06-29 14:35:07.072687
```

2020. 6. 29. 부족분 점수: 20.640759390774367 추가분 점수: 2.211273260927602 기타 점수: 30.0 [Episode 622] - Mean score over last 1 times:52.85203265170197 epoch 622 start, epsilon: 0.001 time: 2020-06-29 14:35:10.587003 부족분 점수: 39.15693240387419 추가분 점수: 0.5796061114263451 기타 점수: 30.0 부족분 점수: 20.640759390774367 추가분 점수: 2.224744499602622 기타 점수: 30.0 부족분 점수: 20.640759390774367 추가분 점수: 2.211273260927602 기타 점수: 30.0 부족분 점수: 20.640759390774367 추가분 점수: 2.6240891553302936 기타 점수: 30.0 부족분 점수: 20.640759390774367 추가분 점수: 2.6240891553302936 기타 점수: 30.0 부족분 점수: 23.930375968907708 추가분 점수: 2.9892650970804735 기타 점수: 30.0

[Episode 623] - Mean score over last 1 times:69.73653851530054 epoch 623 start, epsilon: 0.001 time: 2020-06-29 14:35:14.014991 [Episode 624] - Mean score over last 1 times:52.865503890376985 epoch 624 start, epsilon: 0.001 time: 2020-06-29 14:35:17.525262 [Episode 625] - Mean score over last 1 times:52.85203265170197 epoch 625 start, epsilon: 0.001 time: 2020-06-29 14:35:21.012692 [Episode 626] - Mean score over last 1 times:53.26484854610466 epoch 626 start, epsilon: 0.001 time: 2020-06-29 14:35:24.465407 [Episode 627] - Mean score over last 1 times:53.26484854610466 epoch 627 start, epsilon: 0.001 time: 2020-06-29 14:35:27.932219 [Episode 628] - Mean score over last 1 times:56.91964106598818 epoch 628 start, epsilon: 0.001 time: 2020-06-29 14:35:31.396822

부족분 점수: 23.930375968907708 추가분 점수: 3.0027363357554937

기타 점수: 30.0

[Episode 629] - Mean score over last 1 times:56.9331123046632

epoch 629 start, epsilon: 0.001 time: 2020-06-29 14:35:34.841701 부족분 점수: 23.930375968907708 추가분 점수: 3.8776909836093276

기타 점수: 30.0

[Episode 630] - Mean score over last 1 times:57.80806695251704

epoch 630 start, epsilon: 0.001 time: 2020-06-29 14:35:38.291453 부족분 점수: 23.930375968907708 추가분 점수: 4.475838557726486

기타 점수: 30.0

[Episode 631] - Mean score over last 1 times:58.406214526634194

epoch 631 start, epsilon: 0.001 time: 2020-06-29 14:35:41.756232

부족분 점수: 23.930375968907708

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2020. 6. 29.
                                             Untitled - Jupyter Notebook
  추가분 점수: 4.924053856691213
  기타 점수: 30.0
  [Episode 632] - Mean score over last 1 times:58.85442982559892
  epoch 632 start, epsilon: 0.001 time: 2020-06-29 14:35:45.245865
  부족분 점수: 23.930375968907708
  추가분 점수: 4.924226509738769
  기타 점수: 30.0
  [Episode 633] - Mean score over last 1 times:58.85460247864648
  epoch 633 start, epsilon: 0.001 time: 2020-06-29 14:35:48.690549
  부족분 점수: 23.930375968907708
  추가분 점수: 4.9202720790836985
  기타 점수: 30.0
  [Episode 634] - Mean score over last 1 times:58.850648047991406
  epoch 634 start, epsilon: 0.001 time: 2020-06-29 14:35:52.152339
  부족분 점수: 23.934246837945455
  추가분 점수: 4.917775061342522
  기타 점수: 30.0
  [Episode 635] - Mean score over last 1 times:58.852021899287976
  epoch 635 start, epsilon: 0.001 time: 2020-06-29 14:35:55.587360
  부족분 점수: 23.930375968907708
  추가분 점수: 4.97160656118446
  기타 점수: 30.0
  [Episode 636] - Mean score over last 1 times:58.90198253009217
  epoch 636 start, epsilon: 0.001 time: 2020-06-29 14:35:59.079542
  부족분 점수: 23.930375968907708
  추가분 점수: 5.740856991972247
  기타 점수: 30.0
  [Episode 637] - Mean score over last 1 times:59.671232960879955
  epoch 637 start, epsilon: 0.001 time: 2020-06-29 14:36:02.501387
  부족분 점수: 23.90715997103607
  추가분 점수: 5.192231350168337
  기타 점수: 30.0
  [Episode 638] - Mean score over last 1 times:59.09939132120441
  epoch 638 start, epsilon: 0.001 time: 2020-06-29 14:36:06.000625
  부족분 점수: 23.930375968907708
  추가분 점수: 5.165461525865853
  기타 점수: 30.0
  [Episode 639] - Mean score over last 1 times:59.09583749477356
  epoch 639 start, epsilon: 0.001 time: 2020-06-29 14:36:09.452590
  부족분 점수: 23.930375968907708
  추가분 점수: 5.1519902871908325
  기타 점수: 30.0
  [Episode 640] - Mean score over last 1 times:59.08236625609854
  epoch 640 start, epsilon: 0.001 time: 2020-06-29 14:36:12.900116
  부족분 점수: 23.693640070007433
  추가분 점수: 5.486182072776639
  기타 점수: 30.0
  [Episode 641] - Mean score over last 1 times:59.179822142784076
  epoch 641 start, epsilon: 0.001 time: 2020-06-29 14:36:16.369731
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부족분 점수: 23.693640070007433

```
2020. 6. 29.
                                             Untitled - Jupyter Notebook
  추가분 점수: 5.4885107384358545
  기타 점수: 30.0
  [Episode 642] - Mean score over last 1 times:59.18215080844329
  epoch 642 start, epsilon: 0.001 time: 2020-06-29 14:36:19.825207
  부족분 점수: 23.693640070007433
  추가분 점수: 5.50376442013921
  기타 점수: 30.0
  [Episode 643] - Mean score over last 1 times:59.19740449014664
  epoch 643 start, epsilon: 0.001 time: 2020-06-29 14:36:23.264555
  부족분 점수: 22.809017465914078
  추가분 점수: 7.452415806294342
  기타 점수: 30.0
  [Episode 644] - Mean score over last 1 times:60.26143327220842
  epoch 644 start, epsilon: 0.001 time: 2020-06-29 14:36:26.712266
  부족분 점수: 22.76837334101772
  추가분 점수: 7.494736693350061
  기타 점수: 30.0
  [Episode 645] - Mean score over last 1 times:60.263110034367784
  epoch 645 start, epsilon: 0.001 time: 2020-06-29 14:36:30.150208
  부족분 점수: 22.809017465914078
  추가분 점수: 7.42548868953572
  기타 점수: 30.0
  [Episode 646] - Mean score over last 1 times:60.23450615544979
  epoch 646 start, epsilon: 0.001 time: 2020-06-29 14:36:33.598390
  부족분 점수: 22.809017465914078
  추가분 점수: 7.342215236907938
  기타 점수: 30.0
  [Episode 647] - Mean score over last 1 times:60.151232702822014
  epoch 647 start. epsilon: 0.001 time: 2020-06-29 14:36:37.059732
  부족분 점수: 22.809017465914078
  추가분 점수: 7.342215236907938
  기타 점수: 30.0
  [Episode 648] - Mean score over last 1 times:60.151232702822014
  epoch 648 start, epsilon: 0.001 time: 2020-06-29 14:36:40.511762
  부족분 점수: 22.809017465914078
  추가분 점수: 7.342215236907938
  기타 점수: 30.0
  [Episode 649] - Mean score over last 1 times:60.151232702822014
  epoch 649 start, epsilon: 0.001 time: 2020-06-29 14:36:44.056551
  부족분 점수: 22.791598555244214
  추가분 점수: 7.3592470606740275
  기타 점수: 30.0
  [Episode 650] - Mean score over last 1 times:60.15084561591824
  epoch 650 start, epsilon: 0.001 time: 2020-06-29 14:36:47.537360
  부족분 점수: 22.809017465914078
  추가분 점수: 7.342215236907938
  기타 점수: 30.0
  [Episode 651] - Mean score over last 1 times:60.151232702822014
  epoch 651 start, epsilon: 0.001 time: 2020-06-29 14:36:51.002822
  부족분 점수: 22.809017465914078
```

추가분 점수: 7.319235177720507

기타 점수: 30.0

[Episode 652] - Mean score over last 1 times:60.12825264363458

epoch 652 start, epsilon: 0.001 time: 2020-06-29 14:36:54.443952

부족분 점수: 22.809017465914078 추가분 점수: 4.680193408278683

기타 점수: 30.0

[Episode 653] - Mean score over last 1 times:57.489210874192764

epoch 653 start, epsilon: 0.001 time: 2020-06-29 14:36:57.845197

부족분 점수: 22.809017465914078 추가분 점수: 4.684678700973217

기타 점수: 30.0

[Episode 654] - Mean score over last 1 times:57.4936961668873

epoch 654 start, epsilon: 0.001 time: 2020-06-29 14:37:01.293803

부족분 점수: 22.809017465914078 추가분 점수: 4.684678700973217

기타 점수: 30.0

[Episode 655] - Mean score over last 1 times:57.4936961668873

epoch 655 start, epsilon: 0.001 time: 2020-06-29 14:37:04.757857

부족분 점수: 22.809017465914078 추가분 점수: 3.7154868247599215

기타 점수: 30.0

[Episode 656] - Mean score over last 1 times:56.524504290674

epoch 656 start, epsilon: 0.001 time: 2020-06-29 14:37:08.193996

부족분 점수: 22.809017465914078 추가분 점수: 3.5232705279711762

기타 점수: 30.0

[Episode 657] - Mean score over last 1 times:56.33228799388525

epoch 657 start, epsilon: 0.001 time: 2020-06-29 14:37:11.650089

부족분 점수: 22.809017465914078 추가분 점수: 3.576031087379339

기타 점수: 30.0

[Episode 658] - Mean score over last 1 times:56.385048553293416

epoch 658 start, epsilon: 0.001 time: 2020-06-29 14:37:15.070168

부족분 점수: 22.809017465914078 추가분 점수: 3.5670605019902712

기타 점수: 30.0

[Episode 659] - Mean score over last 1 times:56.37607796790435

epoch 659 start, epsilon: 0.001 time: 2020-06-29 14:37:18.533958

부족분 점수: 22.809017465914078 추가분 점수: 3.990458000610122

기타 점수: 30.0

[Episode 660] - Mean score over last 1 times:56.7994754665242

epoch 660 start, epsilon: 0.001 time: 2020-06-29 14:37:22.006733

부족분 점수: 30.33354449026338 추가분 점수: 5.97025943731696

기타 점수: 30.0

[Episode 661] - Mean score over last 1 times:66.30380392758033

epoch 661 start, epsilon: 0.001 time: 2020-06-29 14:37:25.464519

부족분 점수: 29.664249728808755 추가분 점수: 5.569662586176758

기타 점수: 30.0

2020. 6. 29. [Episode 662] - Mean score over last 1 times:65.23391231498552 epoch 662 start, epsilon: 0.001 time: 2020-06-29 14:37:28.901865 부족분 점수: 38.67721498960242 추가분 점수: 0.9976931463805983 기타 점수: 30.0 [Episode 663] - Mean score over last 1 times:69.67490813598302 epoch 663 start, epsilon: 0.001 time: 2020-06-29 14:37:32.335773 부족분 점수: 38.695401929843264 추가분 점수: 1.0560019514095331 기타 점수: 30.0 [Episode 664] - Mean score over last 1 times:69.7514038812528 epoch 664 start, epsilon: 0.001 time: 2020-06-29 14:37:35.745331 부족분 점수: 38.42947476300911 추가분 점수: 7.354830583429055 기타 점수: 30.0 [Episode 665] - Mean score over last 1 times:75.78430534643817 epoch 665 start, epsilon: 0.001 time: 2020-06-29 14:37:39.172627 부족분 점수: 34.61926162865893 추가분 점수: 0 기타 점수: 30.0 [Episode 666] - Mean score over last 1 times:64.61926162865893 epoch 666 start, epsilon: 0.001 time: 2020-06-29 14:37:42.540833 부족분 점수: 34.639235005681876 추가분 점수: 0 기타 점수: 30.0 [Episode 667] - Mean score over last 1 times:64.63923500568188 epoch 667 start, epsilon: 0.001 time: 2020-06-29 14:37:46.023819 부족분 점수: 34.637208943673635 추가분 점수: 0 기타 점수: 30.0 [Episode 668] - Mean score over last 1 times:64.63720894367364 epoch 668 start, epsilon: 0.001 time: 2020-06-29 14:37:49.467829 부족분 점수: 34.637208943673635 추가분 점수: 0 기타 점수: 30.0 [Episode 669] - Mean score over last 1 times:64.63720894367364 epoch 669 start, epsilon: 0.001 time: 2020-06-29 14:37:52.907504 부족분 점수: 34.63541482659582 추가분 점수: 0 기타 점수: 30.0 [Episode 670] - Mean score over last 1 times:64.63541482659582 epoch 670 start, epsilon: 0.001 time: 2020-06-29 14:37:56.385686 부족분 점수: 34.637208943673635 추가분 점수: 0 기타 점수: 30.0 [Episode 671] - Mean score over last 1 times:64.63720894367364 epoch 671 start, epsilon: 0.001 time: 2020-06-29 14:37:59.914951 부족분 점수: 36.82277533322499 추가분 점수: 0 기타 점수: 30.0

localhost:8888/notebooks/competitions-master/process optimization/DQN/process optimization/Untitled.ipynb

[Episode 672] - Mean score over last 1 times:66.822775333225

```
epoch 672 start, epsilon: 0.001 time: 2020-06-29 14:38:03.342470
부족분 점수: 36.82277533322499
추가분 점수: 0
기타 점수: 30.0
[Episode 673] - Mean score over last 1 times:66.822775333225
epoch 673 start, epsilon: 0.001 time: 2020-06-29 14:38:06.834485
부족분 점수: 36.82277533322499
추가분 점수: 0
기타 점수: 30.0
[Episode 674] - Mean score over last 1 times:66.822775333225
epoch 674 start, epsilon: 0.001 time: 2020-06-29 14:38:10.295175
부족분 점수: 36.82636356738062
추가분 점수: 0
기타 점수: 30.0
[Episode 675] - Mean score over last 1 times:66.82636356738061
epoch 675 start, epsilon: 0.001 time: 2020-06-29 14:38:13.743911
부족분 점수: 38.16845991331096
추가분 점수: 0
기타 점수: 30.0
[Episode 676] - Mean score over last 1 times:68.16845991331095
epoch 676 start, epsilon: 0.001 time: 2020-06-29 14:38:17.216192
부족분 점수: 38.166665796233154
추가분 점수: 0
기타 점수: 30.0
[Episode 677] - Mean score over last 1 times:68.16666579623316
epoch 677 start. epsilon: 0.001 time: 2020-06-29 14:38:20.683245
부족분 점수: 38.163077562077525
추가분 점수: 0
기타 점수: 30.0
[Episode 678] - Mean score over last 1 times:68.16307756207752
epoch 678 start, epsilon: 0.001 time: 2020-06-29 14:38:24.116707
부족분 점수: 38.14871848121845
추가분 점수: 0
기타 점수: 30.0
[Episode 679] - Mean score over last 1 times:68.14871848121845
epoch 679 start, epsilon: 0.001 time: 2020-06-29 14:38:27.556147
부족분 점수: 38.17564252585879
추가분 점수: 0
기타 점수: 30.0
[Episode 680] - Mean score over last 1 times:68.17564252585879
epoch 680 start, epsilon: 0.001 time: 2020-06-29 14:38:31.012343
부족분 점수: 38.163077562077525
추가분 점수: 0
기타 점수: 30.0
[Episode 681] - Mean score over last 1 times:68.16307756207752
epoch 681 start, epsilon: 0.001 time: 2020-06-29 14:38:34.470800
부족분 점수: 38.16128344499971
추가분 점수: 0
기타 점수: 30.0
[Episode 682] - Mean score over last 1 times:68.16128344499971
```

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epoch 682 start, epsilon: 0.001 time: 2020-06-29 14:38:37.891796
부족분 점수: 38.15051259829627
추가분 점수: 0
기타 점수: 30.0
[Episode 683] - Mean score over last 1 times:68.15051259829627
epoch 683 start, epsilon: 0.001 time: 2020-06-29 14:38:41.343544
부족분 점수: 38.85207074596869
추가분 점수: 0
기타 점수: 30.0
[Episode 684] - Mean score over last 1 times:68.85207074596869
epoch 684 start, epsilon: 0.001 time: 2020-06-29 14:38:44.769286
부족분 점수: 38.78300952694601
추가분 점수: 0
기타 점수: 30.0
[Episode 685] - Mean score over last 1 times:68.78300952694602
epoch 685 start, epsilon: 0.001 time: 2020-06-29 14:38:48.215090
부족분 점수: 38.84848251181307
추가분 점수: 0
기타 점수: 30.0
[Episode 686] - Mean score over last 1 times:68.84848251181307
epoch 686 start, epsilon: 0.001 time: 2020-06-29 14:38:51.643099
부족분 점수: 38.839511926423995
추가분 점수: 0
기타 점수: 30.0
[Episode 687] - Mean score over last 1 times:68.839511926424
epoch 687 start, epsilon: 0.001 time: 2020-06-29 14:38:55.129677
부족분 점수: 39.16826237610531
추가분 점수: 1.8864323889744128
기타 점수: 30.0
[Episode 688] - Mean score over last 1 times:71.05469476507972
epoch 688 start, epsilon: 0.001 time: 2020-06-29 14:38:58.571700
부족분 점수: 39.16826237610531
추가분 점수: 1.0692999226133404
기타 점수: 30.0
[Episode 689] - Mean score over last 1 times:70.23756229871864
epoch 689 start, epsilon: 0.001 time: 2020-06-29 14:39:02.034630
부족분 점수: 39.16826237610531
추가분 점수: 1.0692999226133404
기타 점수: 30.0
[Episode 690] - Mean score over last 1 times:70.23756229871864
epoch 690 start, epsilon: 0.001 time: 2020-06-29 14:39:05.463541
부족분 점수: 39.16826237610531
추가분 점수: 1.0692999226133404
기타 점수: 30.0
[Episode 691] - Mean score over last 1 times:70.23756229871864
epoch 691 start, epsilon: 0.001 time: 2020-06-29 14:39:08.878970
부족분 점수: 39.17553715220165
추가분 점수: 1.0672993591868463
기타 점수: 30.0
[Episode 692] - Mean score over last 1 times:70.2428365113885
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epoch 692 start, epsilon: 0.001 time: 2020-06-29 14:39:12.296594
부족분 점수: 39.04024106297751
추가분 점수: 5.068402249650776
기타 점수: 30.0
[Episode 693] - Mean score over last 1 times:74.10864331262829
epoch 693 start, epsilon: 0.001 time: 2020-06-29 14:39:15.720358
부족분 점수: 39.16826237610531
추가분 점수: 1.0692999226133404
기타 점수: 30.0
[Episode 694] - Mean score over last 1 times:70.23756229871864
epoch 694 start, epsilon: 0.001 time: 2020-06-29 14:39:19.169407
부족분 점수: 39.27495089986952
추가분 점수: 1.0033863959843736
기타 점수: 30.0
[Episode 695] - Mean score over last 1 times:70.2783372958539
epoch 695 start, epsilon: 0.001 time: 2020-06-29 14:39:22.658172
부족분 점수: 39.124613719527275
추가분 점수: 1.0934541454088875
기타 점수: 30.0
[Episode 696] - Mean score over last 1 times:70.21806786493616
epoch 696 start, epsilon: 0.001 time: 2020-06-29 14:39:26.107409
부족분 점수: 39.16826237610531
추가분 점수: 1.1172280399608847
기타 점수: 30.0
[Episode 697] - Mean score over last 1 times:70.2854904160662
epoch 697 start, epsilon: 0.001 time: 2020-06-29 14:39:29.595482
부족분 점수: 39.16826237610531
추가분 점수: 1.0692999226133404
기타 점수: 30.0
[Episode 698] - Mean score over last 1 times:70.23756229871864
epoch 698 start, epsilon: 0.001 time: 2020-06-29 14:39:33.071040
부족분 점수: 39.16826237610531
추가분 점수: 1.9532405164476607
기타 점수: 30.0
[Episode 699] - Mean score over last 1 times:71.12150289255297
epoch 699 start, epsilon: 0.001 time: 2020-06-29 14:39:36.541369
부족분 점수: 39.16826237610531
추가분 점수: 1.9622111018367283
기타 점수: 30.0
[Episode 700] - Mean score over last 1 times:71.13047347794205
epoch 700 start, epsilon: 0.001 time: 2020-06-29 14:39:39.977566
부족분 점수: 39.16826237610531
추가분 점수: 1.930798692383573
기타 점수: 30.0
[Episode 701] - Mean score over last 1 times:71.09906106848888
epoch 701 start, epsilon: 0.001 time: 2020-06-29 14:39:43.418836
부족분 점수: 39.16826237610531
추가분 점수: 1.930798692383573
기타 점수: 30.0
[Episode 702] - Mean score over last 1 times:71.09906106848888
epoch 702 start, epsilon: 0.001 time: 2020-06-29 14:39:46.911833
```

2020. 6. 29. Untitled - Jupyter Notebook 부족분 점수: 39.16826237610531 추가분 점수: 1.930798692383573 기타 점수: 30.0 [Episode 703] - Mean score over last 1 times:71.09906106848888 epoch 703 start, epsilon: 0.001 time: 2020-06-29 14:39:50.363937 부족분 점수: 39.196722479887605 추가분 점수: 1.9165686404924243 기타 점수: 30.0 [Episode 704] - Mean score over last 1 times:71.11329112038003 epoch 704 start, epsilon: 0.001 time: 2020-06-29 14:39:53.824267 부족분 점수: 39.16826237610531 추가분 점수: 1.930798692383573 기타 점수: 30.0 [Episode 705] - Mean score over last 1 times:71.09906106848888 epoch 705 start, epsilon: 0.001 time: 2020-06-29 14:39:57.328287 부족분 점수: 39.16826237610531 추가분 점수: 1.930798692383573 기타 점수: 30.0 [Episode 706] - Mean score over last 1 times:71.09906106848888 epoch 706 start, epsilon: 0.001 time: 2020-06-29 14:40:00.779109 부족분 점수: 39.20382521736005 추가분 점수: 1.918937858112988 기타 점수: 30.0 [Episode 707] - Mean score over last 1 times:71.12276307547305 epoch 707 start, epsilon: 0.001 time: 2020-06-29 14:40:04.208135 부족분 점수: 39.16826237610531 추가분 점수: 1.9618522784211656 기타 점수: 30.0 [Episode 708] - Mean score over last 1 times:71.13011465452648 epoch 708 start, epsilon: 0.001 time: 2020-06-29 14:40:07.695504 부족분 점수: 39.210927954832485 추가분 점수: 1.9094659030199845 기타 점수: 30.0 [Episode 709] - Mean score over last 1 times:71.12039385785246 epoch 709 start, epsilon: 0.001 time: 2020-06-29 14:40:11.141834 부족분 점수: 39.16826237610531 추가분 점수: 1.9173428142999738 기타 점수: 30.0 [Episode 710] - Mean score over last 1 times:71.08560519040529 epoch 710 start, epsilon: 0.001 time: 2020-06-29 14:40:14.571086 부족분 점수: 39.16826237610531 추가분 점수: 1.9677765513198886 기타 점수: 30.0 [Episode 711] - Mean score over last 1 times:71.1360389274252 epoch 711 start, epsilon: 0.001 time: 2020-06-29 14:40:18.031507 부족분 점수: 39.16826237610531 추가분 점수: 2.1759660199140862 기타 점수: 30.0 [Episode 712] - Mean score over last 1 times:71.34422839601939 epoch 712 start, epsilon: 0.001 time: 2020-06-29 14:40:21.482708 부족분 점수: 39.10278939123826

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추가분 점수: 2.179372384667304
기타 점수: 30.0
[Episode 713] - Mean score over last 1 times:71.28216177590556
epoch 713 start, epsilon: 0.001 time: 2020-06-29 14:40:24.926676
부족분 점수: 39.16826237610531
추가분 점수: 2.152283674486948
기타 점수: 30.0
[Episode 714] - Mean score over last 1 times:71.32054605059226
epoch 714 start, epsilon: 0.001 time: 2020-06-29 14:40:28.363567
부족분 점수: 39.16826237610531
추가분 점수: 2.116027148923698
기타 점수: 30.0
[Episode 715] - Mean score over last 1 times:71.28428952502901
epoch 715 start, epsilon: 0.001 time: 2020-06-29 14:40:31.798732
부족분 점수: 39.16826237610531
추가분 점수: 2.17292585166031
기타 점수: 30.0
[Episode 716] - Mean score over last 1 times:71.34118822776563
epoch 716 start, epsilon: 0.001 time: 2020-06-29 14:40:35.230235
부족분 점수: 39.16826237610531
추가분 점수: 2.1653807291549865
기타 점수: 30.0
[Episode 717] - Mean score over last 1 times:71.33364310526031
epoch 717 start, epsilon: 0.001 time: 2020-06-29 14:40:38.653699
부족분 점수: 39.16826237610531
추가분 점수: 2.1312845171689943
기타 점수: 30.0
[Episode 718] - Mean score over last 1 times:71.29954689327431
epoch 718 start, epsilon: 0.001 time: 2020-06-29 14:40:42.086127
부족분 점수: 39.16826237610531
추가분 점수: 2.133725622357403
기타 점수: 30.0
[Episode 719] - Mean score over last 1 times:71.30198799846272
epoch 719 start, epsilon: 0.001 time: 2020-06-29 14:40:45.496687
부족분 점수: 39.16826237610531
추가분 점수: 2.1691532904076483
기타 점수: 30.0
[Episode 720] - Mean score over last 1 times:71.33741566651295
epoch 720 start, epsilon: 0.001 time: 2020-06-29 14:40:48.925643
부족분 점수: 39.13916327171995
추가분 점수: 2.1480466089497563
기타 점수: 30.0
[Episode 721] - Mean score over last 1 times:71.2872098806697
epoch 721 start, epsilon: 0.001 time: 2020-06-29 14:40:52.344677
부족분 점수: 39.16826237610531
추가분 점수: 2.217968021091936
기타 점수: 30.0
[Episode 722] - Mean score over last 1 times:71.38623039719724
epoch 722 start, epsilon: 0.001 time: 2020-06-29 14:40:55.788989
부족분 점수: 39.16826237610531
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추가분 점수: 2.1208712650337946
기타 점수: 30.0
[Episode 723] - Mean score over last 1 times:71.2891336411391
epoch 723 start, epsilon: 0.001 time: 2020-06-29 14:40:59.234389
부족분 점수: 39.154032324214164
추가분 점수: 2.165494397531491
기타 점수: 30.0
[Episode 724] - Mean score over last 1 times:71.31952672174566
epoch 724 start, epsilon: 0.001 time: 2020-06-29 14:41:02.697312
부족분 점수: 39.16826237610531
추가분 점수: 2.1414059180672207
기타 점수: 30.0
[Episode 725] - Mean score over last 1 times:71.30966829417252
epoch 725 start, epsilon: 0.001 time: 2020-06-29 14:41:06.164502
부족분 점수: 41.513165716511686
추가분 점수: 0
기타 점수: 30.0
[Episode 726] - Mean score over last 1 times:71.51316571651168
epoch 726 start, epsilon: 0.001 time: 2020-06-29 14:41:09.619464
부족분 점수: 39.16826237610531
추가분 점수: 3.017375593802063
기타 점수: 30.0
[Episode 727] - Mean score over last 1 times:72.18563796990738
epoch 727 start, epsilon: 0.001 time: 2020-06-29 14:41:13.091757
부족분 점수: 39.10278939123826
추가분 점수: 3.017547632425963
기타 점수: 30.0
[Episode 728] - Mean score over last 1 times:72.12033702366423
epoch 728 start, epsilon: 0.001 time: 2020-06-29 14:41:16.538243
부족분 점수: 39.16826237610531
추가분 점수: 3.008938328147086
기타 점수: 30.0
[Episode 729] - Mean score over last 1 times:72.1772007042524
epoch 729 start, epsilon: 0.001 time: 2020-06-29 14:41:19.944298
부족분 점수: 39.16826237610531
추가분 점수: 3.0044530354525523
기타 점수: 30.0
[Episode 730] - Mean score over last 1 times:72.17271541155786
epoch 730 start, epsilon: 0.001 time: 2020-06-29 14:41:23.377595
부족분 점수: 39.16826237610531
추가분 점수: 3.0044530354525523
기타 점수: 30.0
[Episode 731] - Mean score over last 1 times:72.17271541155786
epoch 731 start, epsilon: 0.001 time: 2020-06-29 14:41:26.856158
부족분 점수: 40.45416046226779
추가분 점수: 0.25761186427504246
기타 점수: 30.0
[Episode 732] - Mean score over last 1 times:70.71177232654283
epoch 732 start, epsilon: 0.001 time: 2020-06-29 14:41:30.298168
부족분 점수: 40.45954281350122
추가분 점수: 0.24630892668481952
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기타 점수: 30.0 [Episode 733] - Mean score over last 1 times:70.70585174018603 epoch 733 start, epsilon: 0.001 time: 2020-06-29 14:41:33.778312 부족분 점수: 40.43800726433089 추가분 점수: 0.29153357994250895 기타 점수: 30.0 [Episode 734] - Mean score over last 1 times:70.7295408442734 epoch 734 start, epsilon: 0.001 time: 2020-06-29 14:41:37.193191 부족분 점수: 40.59772054967569 추가분 점수: 0.26336717066815174 기타 점수: 30.0 [Episode 735] - Mean score over last 1 times:70.86108772034385 epoch 735 start, epsilon: 0.001 time: 2020-06-29 14:41:40.661898 부족분 점수: 42.87852875026535 추가분 점수: 0.2864541395718634 기타 점수: 30.0 [Episode 736] - Mean score over last 1 times:73.16498288983722 epoch 736 start. epsilon: 0.001 time: 2020-06-29 14:41:44.096277 부족분 점수: 40.94308808715476 추가분 점수: 0 기타 점수: 30.0 [Episode 737] - Mean score over last 1 times:70.94308808715476 epoch 737 start, epsilon: 0.001 time: 2020-06-29 14:41:47.540547 부족분 점수: 40.95654396523837 추가분 점수: 0 기타 점수: 30.0 [Episode 738] - Mean score over last 1 times:70.95654396523837 epoch 738 start, epsilon: 0.001 time: 2020-06-29 14:41:51.011604 부족분 점수: 40.95654396523837 추가분 점수: 0 기타 점수: 30.0 [Episode 739] - Mean score over last 1 times:70.95654396523837 epoch 739 start, epsilon: 0.001 time: 2020-06-29 14:41:54.497029 부족분 점수: 39.803519603033166 추가분 점수: 0.2466087654293303 기타 점수: 30.0 [Episode 740] - Mean score over last 1 times:70.0501283684625 epoch 740 start, epsilon: 0.001 time: 2020-06-29 14:41:57.923067 부족분 점수: 39.866749941552946 추가분 점수: 0.23295381408093174 기타 점수: 30.0 [Episode 741] - Mean score over last 1 times:70.09970375563387 epoch 741 start, epsilon: 0.001 time: 2020-06-29 14:42:01.328417 부족분 점수: 39.801276956685896 추가분 점수: 0.23942738172882283 기타 점수: 30.0 [Episode 742] - Mean score over last 1 times:70.04070433841471 epoch 742 start, epsilon: 0.001 time: 2020-06-29 14:42:04.740785 부족분 점수: 39.801276956685896 추가분 점수: 0.2476852356760184 기타 점수: 30.0

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[Episode 743] - Mean score over last 1 times:70.04896219236191
epoch 743 start, epsilon: 0.001 time: 2020-06-29 14:42:08.268835
부족분 점수: 38.50289685393583
추가분 점수: 0
기타 점수: 30.0
[Episode 744] - Mean score over last 1 times:68.50289685393582
epoch 744 start, epsilon: 0.001 time: 2020-06-29 14:42:11.761796
부족분 점수: 37.97680581416818
추가분 점수: 0
기타 점수: 30.0
[Episode 745] - Mean score over last 1 times:67.97680581416819
epoch 745 start, epsilon: 0.001 time: 2020-06-29 14:42:15.213334
부족분 점수: 37.284871077020156
추가분 점수: 2.445050402708626
기타 점수: 30.0
[Episode 746] - Mean score over last 1 times:69.72992147972877
epoch 746 start, epsilon: 0.001 time: 2020-06-29 14:42:18.671648
부족분 점수: 37.98039404832381
추가분 점수: 0
기타 점수: 30.0
[Episode 747] - Mean score over last 1 times:67.9803940483238
epoch 747 start, epsilon: 0.001 time: 2020-06-29 14:42:22.113036
부족분 점수: 38.04222964514269
추가분 점수: 0
기타 점수: 30.0
[Episode 748] - Mean score over last 1 times:68.0422296451427
epoch 748 start, epsilon: 0.001 time: 2020-06-29 14:42:25.584853
부족분 점수: 37.98039404832381
추가분 점수: 0
기타 점수: 30.0
[Episode 749] - Mean score over last 1 times:67.9803940483238
epoch 749 start, epsilon: 0.001 time: 2020-06-29 14:42:28.992399
부족분 점수: 37.97142346293474
추가분 점수: 0
기타 점수: 30.0
[Episode 750] - Mean score over last 1 times:67.97142346293474
epoch 750 start, epsilon: 0.001 time: 2020-06-29 14:42:32.415753
부족분 점수: 42.53754205345916
추가분 점수: 1.6756906045099318
기타 점수: 30.0
[Episode 751] - Mean score over last 1 times:74.21323265796909
epoch 751 start, epsilon: 0.001 time: 2020-06-29 14:42:35.836679
부족분 점수: 42.99094063039253
추가분 점수: 1.4194482905658634
기타 점수: 30.0
[Episode 752] - Mean score over last 1 times:74.41038892095838
epoch 752 start, epsilon: 0.001 time: 2020-06-29 14:42:39.292833
부족분 점수: 42.99094063039253
추가분 점수: 0.5996031437600813
기타 점수: 30.0
[Episode 753] - Mean score over last 1 times:73.59054377415261
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epoch 753 start, epsilon: 0.001 time: 2020-06-29 14:42:42.712623
부족분 점수: 39.94961265196617
추가분 점수: 0
기타 점수: 30.0
[Episode 754] - Mean score over last 1 times:69.94961265196616
epoch 754 start, epsilon: 0.001 time: 2020-06-29 14:42:46.147953
부족분 점수: 39.894511138425656
추가분 점수: 0
기타 점수: 30.0
[Episode 755] - Mean score over last 1 times:69.89451113842566
epoch 755 start, epsilon: 0.001 time: 2020-06-29 14:42:49.587254
부족분 점수: 39.84292412820195
추가분 점수: 0
기타 점수: 30.0
[Episode 756] - Mean score over last 1 times:69.84292412820196
epoch 756 start, epsilon: 0.001 time: 2020-06-29 14:42:52.996423
부족분 점수: 39.93538260007502
추가분 점수: 0
기타 점수: 30.0
[Episode 757] - Mean score over last 1 times:69.93538260007503
epoch 757 start, epsilon: 0.001 time: 2020-06-29 14:42:56.430800
부족분 점수: 39.93538260007502
추가분 점수: 0
기타 점수: 30.0
[Episode 758] - Mean score over last 1 times:69.93538260007503
epoch 758 start, epsilon: 0.001 time: 2020-06-29 14:42:59.904686
부족분 점수: 39.93538260007502
추가분 점수: 0
기타 점수: 30.0
[Episode 759] - Mean score over last 1 times:69.93538260007503
epoch 759 start, epsilon: 0.001 time: 2020-06-29 14:43:03.356525
부족분 점수: 39.93538260007502
추가분 점수: 0
기타 점수: 30.0
[Episode 760] - Mean score over last 1 times:69.93538260007503
epoch 760 start, epsilon: 0.001 time: 2020-06-29 14:43:06.826013
부족분 점수: 40.64488678168882
추가분 점수: 0
기타 점수: 30.0
[Episode 761] - Mean score over last 1 times:70.64488678168883
epoch 761 start, epsilon: 0.001 time: 2020-06-29 14:43:10.272496
부족분 점수: 40.649888190255055
추가분 점수: 0
기타 점수: 30.0
[Episode 762] - Mean score over last 1 times:70.64988819025506
epoch 762 start, epsilon: 0.001 time: 2020-06-29 14:43:13.735428
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 763] - Mean score over last 1 times:70.62442647391788
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epoch 763 start, epsilon: 0.001 time: 2020-06-29 14:43:17.379967
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 764] - Mean score over last 1 times:70.62442647391788
epoch 764 start, epsilon: 0.001 time: 2020-06-29 14:43:20.829977
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 765] - Mean score over last 1 times:70.62442647391788
epoch 765 start, epsilon: 0.001 time: 2020-06-29 14:43:24.281376
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 766] - Mean score over last 1 times:70.62442647391788
epoch 766 start, epsilon: 0.001 time: 2020-06-29 14:43:27.714699
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 767] - Mean score over last 1 times: 70.62442647391788
epoch 767 start, epsilon: 0.001 time: 2020-06-29 14:43:31.190950
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 768] - Mean score over last 1 times:70.62442647391788
epoch 768 start, epsilon: 0.001 time: 2020-06-29 14:43:34.631032
부족분 점수: 40.66534708945978
추가분 점수: 0
기타 점수: 30.0
[Episode 769] - Mean score over last 1 times:70.66534708945977
epoch 769 start, epsilon: 0.001 time: 2020-06-29 14:43:38.312017
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 770] - Mean score over last 1 times:70.62442647391788
epoch 770 start, epsilon: 0.001 time: 2020-06-29 14:43:41.789746
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 771] - Mean score over last 1 times:70.62442647391788
epoch 771 start, epsilon: 0.001 time: 2020-06-29 14:43:45.291141
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 772] - Mean score over last 1 times:70.62442647391788
epoch 772 start, epsilon: 0.001 time: 2020-06-29 14:43:48.814357
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 773] - Mean score over last 1 times:70.62442647391788
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epoch 773 start, epsilon: 0.001 time: 2020-06-29 14:43:52.287225
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 774] - Mean score over last 1 times:70.62442647391788
epoch 774 start, epsilon: 0.001 time: 2020-06-29 14:43:55.762623
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 775] - Mean score over last 1 times: 70.62442647391788
epoch 775 start, epsilon: 0.001 time: 2020-06-29 14:43:59.237394
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 776] - Mean score over last 1 times: 70.62442647391788
epoch 776 start, epsilon: 0.001 time: 2020-06-29 14:44:02.715879
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 777] - Mean score over last 1 times:70.62442647391788
epoch 777 start, epsilon: 0.001 time: 2020-06-29 14:44:06.197948
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 778] - Mean score over last 1 times:70.62442647391788
epoch 778 start, epsilon: 0.001 time: 2020-06-29 14:44:09.720123
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 779] - Mean score over last 1 times:70.62442647391788
epoch 779 start, epsilon: 0.001 time: 2020-06-29 14:44:13.139049
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 780] - Mean score over last 1 times:70.62442647391788
epoch 780 start, epsilon: 0.001 time: 2020-06-29 14:44:16.616878
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 781] - Mean score over last 1 times:70.62442647391788
epoch 781 start, epsilon: 0.001 time: 2020-06-29 14:44:20.102695
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 782] - Mean score over last 1 times:70.62442647391788
epoch 782 start, epsilon: 0.001 time: 2020-06-29 14:44:23.571621
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 783] - Mean score over last 1 times:70.62442647391788
epoch 783 start, epsilon: 0.001 time: 2020-06-29 14:44:27.017362
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부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 784] - Mean score over last 1 times:70.62442647391788
epoch 784 start, epsilon: 0.001 time: 2020-06-29 14:44:30.464827
부족분 점수: 40.61110884115705
추가분 점수: 0
기타 점수: 30.0
[Episode 785] - Mean score over last 1 times:70.61110884115705
epoch 785 start, epsilon: 0.001 time: 2020-06-29 14:44:33.914119
부족분 점수: 44.111853676234986
추가분 점수: 0.978162461602361
기타 점수: 30.0
[Episode 786] - Mean score over last 1 times:75.09001613783735
epoch 786 start, epsilon: 0.001 time: 2020-06-29 14:44:37.350430
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 787] - Mean score over last 1 times: 70.62442647391788
epoch 787 start. epsilon: 0.001 time: 2020-06-29 14:44:40.816842
부족분 점수: 43.11096061144985
추가분 점수: 0
기타 점수: 30.0
[Episode 788] - Mean score over last 1 times:73.11096061144985
epoch 788 start, epsilon: 0.001 time: 2020-06-29 14:44:44.251875
부족분 점수: 41.3936265219658
추가분 점수: 0
기타 점수: 30.0
[Episode 789] - Mean score over last 1 times:71.3936265219658
epoch 789 start, epsilon: 0.001 time: 2020-06-29 14:44:47.720652
부족분 점수: 43.117780714040165
추가분 점수: 0
기타 점수: 30.0
[Episode 790] - Mean score over last 1 times:73.11778071404017
epoch 790 start, epsilon: 0.001 time: 2020-06-29 14:44:51.180608
부족분 점수: 43.12687418416059
추가분 점수: 0
기타 점수: 30.0
[Episode 791] - Mean score over last 1 times:73.12687418416058
epoch 791 start, epsilon: 0.001 time: 2020-06-29 14:44:54.540163
부족분 점수: 43.11096061144985
추가분 점수: 0
기타 점수: 30.0
[Episode 792] - Mean score over last 1 times:73.11096061144985
epoch 792 start, epsilon: 0.001 time: 2020-06-29 14:44:58.010198
부족분 점수: 43.11096061144985
추가분 점수: 0
기타 점수: 30.0
[Episode 793] - Mean score over last 1 times:73.11096061144985
epoch 793 start, epsilon: 0.001 time: 2020-06-29 14:45:01.516658
부족분 점수: 43.112324631967915
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추가분 점수: 0
기타 점수: 30.0
[Episode 794] - Mean score over last 1 times:73.11232463196791
epoch 794 start, epsilon: 0.001 time: 2020-06-29 14:45:04.912404
부족분 점수: 43.15764144877412
추가분 점수: 0
기타 점수: 30.0
[Episode 795] - Mean score over last 1 times:73.15764144877411
epoch 795 start, epsilon: 0.001 time: 2020-06-29 14:45:08.366808
부족분 점수: 43.09096112142148
추가분 점수: 0
기타 점수: 30.0
[Episode 796] - Mean score over last 1 times:73.09096112142149
epoch 796 start, epsilon: 0.001 time: 2020-06-29 14:45:11.789173
부족분 점수: 43.11096061144985
추가분 점수: 0
기타 점수: 30.0
[Episode 797] - Mean score over last 1 times:73.11096061144985
epoch 797 start, epsilon: 0.001 time: 2020-06-29 14:45:15.249367
부족분 점수: 43.11096061144985
추가분 점수: 0
기타 점수: 30.0
[Episode 798] - Mean score over last 1 times:73.11096061144985
epoch 798 start, epsilon: 0.001 time: 2020-06-29 14:45:18.733223
부족분 점수: 42.484524972174285
추가분 점수: 0
기타 점수: 30.0
[Episode 799] - Mean score over last 1 times:72.48452497217428
epoch 799 start, epsilon: 0.001 time: 2020-06-29 14:45:22.150378
부족분 점수: 40.56256476409357
추가분 점수: 0
기타 점수: 30.0
[Episode 800] - Mean score over last 1 times:70.56256476409357
epoch 800 start, epsilon: 0.001 time: 2020-06-29 14:45:25.615135
부족분 점수: 42.470884766993656
추가분 점수: 0
기타 점수: 30.0
[Episode 801] - Mean score over last 1 times:72.47088476699366
epoch 801 start, epsilon: 0.001 time: 2020-06-29 14:45:29.070073
부족분 점수: 42.45086223607816
추가분 점수: 0
기타 점수: 30.0
[Episode 802] - Mean score over last 1 times:72.45086223607817
epoch 802 start, epsilon: 0.001 time: 2020-06-29 14:45:32.524113
부족분 점수: 42.50451831796609
추가분 점수: 0
기타 점수: 30.0
[Episode 803] - Mean score over last 1 times:72.50451831796609
epoch 803 start, epsilon: 0.001 time: 2020-06-29 14:45:35.919005
부족분 점수: 36.15414414931969
추가분 점수: 0
```

```
기타 점수: 30.0
[Episode 804] - Mean score over last 1 times:66.15414414931969
epoch 804 start, epsilon: 0.001 time: 2020-06-29 14:45:39.365118
부족분 점수: 44.12928026720056
추가분 점수: 0
기타 점수: 30.0
[Episode 805] - Mean score over last 1 times:74.12928026720056
epoch 805 start, epsilon: 0.001 time: 2020-06-29 14:45:42.811981
부족분 점수: 42.470884766993656
추가분 점수: 0
기타 점수: 30.0
[Episode 806] - Mean score over last 1 times:72.47088476699366
epoch 806 start, epsilon: 0.001 time: 2020-06-29 14:45:46.306911
부족분 점수: 42.3754033307292
추가분 점수: 0
기타 점수: 30.0
[Episode 807] - Mean score over last 1 times:72.3754033307292
epoch 807 start, epsilon: 0.001 time: 2020-06-29 14:45:49.780132
부족분 점수: 43.03547866521376
추가분 점수: 0
기타 점수: 30.0
[Episode 808] - Mean score over last 1 times:73.03547866521376
epoch 808 start, epsilon: 0.001 time: 2020-06-29 14:45:53.246262
부족분 점수: 43.03547866521376
추가분 점수: 0
기타 점수: 30.0
[Episode 809] - Mean score over last 1 times:73.03547866521376
epoch 809 start, epsilon: 0.001 time: 2020-06-29 14:45:56.682885
부족분 점수: 42.97548019512867
추가분 점수: 0.6597361726260131
기타 점수: 30.0
[Episode 810] - Mean score over last 1 times:73.63521636775468
epoch 810 start, epsilon: 0.001 time: 2020-06-29 14:46:00.115102
부족분 점수: 43.0154791751854
추가분 점수: 0.6183018989070321
기타 점수: 30.0
[Episode 811] - Mean score over last 1 times:73.63378107409244
epoch 811 start, epsilon: 0.001 time: 2020-06-29 14:46:03.547153
부족분 점수: 43.03547866521376
추가분 점수: 0.615360038438344
기타 점수: 30.0
[Episode 812] - Mean score over last 1 times:73.65083870365211
epoch 812 start, epsilon: 0.001 time: 2020-06-29 14:46:07.084132
부족분 점수: 43.03547866521376
추가분 점수: 0.656629646617306
기타 점수: 30.0
[Episode 813] - Mean score over last 1 times:73.69210831183106
epoch 813 start, epsilon: 0.001 time: 2020-06-29 14:46:10.572516
부족분 점수: 42.98879782788949
추가분 점수: 0.6190594832758478
```

Untitled - Jupyter Notebook 기타 점수: 30.0 [Episode 814] - Mean score over last 1 times:73.60785731116533 epoch 814 start, epsilon: 0.001 time: 2020-06-29 14:46:14.023507 부족분 점수: 43.033661507248816 추가분 점수: 1.0193485081639997 기타 점수: 30.0 [Episode 815] - Mean score over last 1 times:74.05301001541281 epoch 815 start, epsilon: 0.001 time: 2020-06-29 14:46:17.469398 부족분 점수: 37.58193416266191 추가분 점수: 0 기타 점수: 30.0 [Episode 816] - Mean score over last 1 times:67.58193416266191 epoch 816 start, epsilon: 0.001 time: 2020-06-29 14:46:20.913535 부족분 점수: 37.58732265813191 추가분 점수: 0 기타 점수: 30.0 [Episode 817] - Mean score over last 1 times:67.58732265813191 epoch 817 start. epsilon: 0.001 time: 2020-06-29 14:46:24.348489 부족분 점수: 37.58193416266191 추가분 점수: 0 기타 점수: 30.0 [Episode 818] - Mean score over last 1 times:67.58193416266191 epoch 818 start, epsilon: 0.001 time: 2020-06-29 14:46:27.802961 부족분 점수: 36.52747257135993 추가분 점수: 0 기타 점수: 30.0 [Episode 819] - Mean score over last 1 times:66.52747257135994 epoch 819 start, epsilon: 0.001 time: 2020-06-29 14:46:31.250112 부족분 점수: 36.52747257135993 추가분 점수: 0 기타 점수: 30.0 [Episode 820] - Mean score over last 1 times:66.52747257135994 epoch 820 start, epsilon: 0.001 time: 2020-06-29 14:46:34.678220 부족분 점수: 36.52701789785391 추가분 점수: 0 기타 점수: 30.0 [Episode 821] - Mean score over last 1 times:66.52701789785391 epoch 821 start, epsilon: 0.001 time: 2020-06-29 14:46:38.119409 부족분 점수: 36.52747257135993 추가분 점수: 0 기타 점수: 30.0 [Episode 822] - Mean score over last 1 times:66.52747257135994 epoch 822 start, epsilon: 0.001 time: 2020-06-29 14:46:41.571400 부족분 점수: 36.52747257135993 추가분 점수: 0 기타 점수: 30.0 [Episode 823] - Mean score over last 1 times:66.52747257135994 epoch 823 start, epsilon: 0.001 time: 2020-06-29 14:46:45.014249 부족분 점수: 36.52747257135993

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추가분 점수: 0 기타 점수: 30.0 [Episode 824] - Mean score over last 1 times:66.52747257135994 epoch 824 start, epsilon: 0.001 time: 2020-06-29 14:46:48.471957 부족분 점수: 36.45635303308702 추가분 점수: 0 기타 점수: 30.0 [Episode 825] - Mean score over last 1 times:66.45635303308703 epoch 825 start, epsilon: 0.001 time: 2020-06-29 14:46:51.886017 부족분 점수: 36.52747257135993 추가분 점수: 0 기타 점수: 30.0 [Episode 826] - Mean score over last 1 times:66.52747257135994 epoch 826 start, epsilon: 0.001 time: 2020-06-29 14:46:55.349511 부족분 점수: 37.655141205308745 추가분 점수: 0 기타 점수: 30.0 [Episode 827] - Mean score over last 1 times:67.65514120530875 epoch 827 start, epsilon: 0.001 time: 2020-06-29 14:46:58.798654 부족분 점수: 37.32625097424551 추가분 점수: 0 기타 점수: 30.0 [Episode 828] - Mean score over last 1 times:67.32625097424551 epoch 828 start, epsilon: 0.001 time: 2020-06-29 14:47:02.229064 부족분 점수: 37.335221559634576 추가분 점수: 0 기타 점수: 30.0 [Episode 829] - Mean score over last 1 times:67.33522155963458 epoch 829 start, epsilon: 0.001 time: 2020-06-29 14:47:05.671086 부족분 점수: 37.35316887464928 추가분 점수: 0 기타 점수: 30.0 [Episode 830] - Mean score over last 1 times:67.35316887464927 epoch 830 start, epsilon: 0.001 time: 2020-06-29 14:47:09.103178 부족분 점수: 36.65858750759965 추가분 점수: 0 기타 점수: 30.0 [Episode 831] - Mean score over last 1 times:66.65858750759965 epoch 831 start, epsilon: 0.001 time: 2020-06-29 14:47:12.510131 부족분 점수: 36.65320515636621 추가분 점수: 0 기타 점수: 30.0 [Episode 832] - Mean score over last 1 times:66.65320515636621 epoch 832 start, epsilon: 0.001 time: 2020-06-29 14:47:15.944195 부족분 점수: 36.65858750759965 추가분 점수: 0 기타 점수: 30.0 [Episode 833] - Mean score over last 1 times:66.65858750759965 epoch 833 start, epsilon: 0.001 time: 2020-06-29 14:47:19.471790 부족분 점수: 36.64647260914698 추가분 점수: 0 기타 점수: 30.0 [Episode 834] - Mean score over last 1 times:66.64647260914698

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epoch 834 start, epsilon: 0.001 time: 2020-06-29 14:47:22.900363
부족분 점수: 36.668011230435596
추가분 점수: 0
기타 점수: 30.0
[Episode 835] - Mean score over last 1 times:66.6680112304356
epoch 835 start, epsilon: 0.001 time: 2020-06-29 14:47:26.349708
부족분 점수: 39.82428865869166
추가분 점수: 0
기타 점수: 30.0
[Episode 836] - Mean score over last 1 times:69.82428865869166
epoch 836 start, epsilon: 0.001 time: 2020-06-29 14:47:29.803443
부족분 점수: 39.88463581420197
추가분 점수: 0
기타 점수: 30.0
[Episode 837] - Mean score over last 1 times:69.88463581420197
epoch 837 start, epsilon: 0.001 time: 2020-06-29 14:47:33.228229
부족분 점수: 39.82294307088329
추가분 점수: 0
기타 점수: 30.0
[Episode 838] - Mean score over last 1 times:69.8229430708833
epoch 838 start, epsilon: 0.001 time: 2020-06-29 14:47:36.690573
부족분 점수: 39.70309359239073
추가분 점수: 0
기타 점수: 30.0
[Episode 839] - Mean score over last 1 times:69.70309359239073
epoch 839 start, epsilon: 0.001 time: 2020-06-29 14:47:40.145204
부족분 점수: 39.825634246500016
추가분 점수: 0
기타 점수: 30.0
[Episode 840] - Mean score over last 1 times:69.82563424650002
epoch 840 start, epsilon: 0.001 time: 2020-06-29 14:47:43.602675
부족분 점수: 39.825634246500016
추가분 점수: 0
기타 점수: 30.0
[Episode 841] - Mean score over last 1 times:69.82563424650002
epoch 841 start, epsilon: 0.001 time: 2020-06-29 14:47:47.048799
부족분 점수: 39.825634246500016
추가분 점수: 0
기타 점수: 30.0
[Episode 842] - Mean score over last 1 times:69.82563424650002
epoch 842 start, epsilon: 0.001 time: 2020-06-29 14:47:50.493155
부족분 점수: 39.825634246500016
추가분 점수: 0
기타 점수: 30.0
[Episode 843] - Mean score over last 1 times:69.82563424650002
epoch 843 start, epsilon: 0.001 time: 2020-06-29 14:47:53.949339
부족분 점수: 39.82294307088329
추가분 점수: 0
기타 점수: 30.0
[Episode 844] - Mean score over last 1 times:69.8229430708833
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epoch 844 start, epsilon: 0.001 time: 2020-06-29 14:47:57.385580
부족분 점수: 42.189961054756516
추가분 점수: 0
기타 점수: 30.0
[Episode 845] - Mean score over last 1 times:72.18996105475651
epoch 845 start, epsilon: 0.001 time: 2020-06-29 14:48:00.809630
부족분 점수: 40.942699464191854
추가분 점수: 0
기타 점수: 30.0
[Episode 846] - Mean score over last 1 times:70.94269946419186
epoch 846 start, epsilon: 0.001 time: 2020-06-29 14:48:04.223841
부족분 점수: 40.91051595304943
추가분 점수: 0
기타 점수: 30.0
[Episode 847] - Mean score over last 1 times:70.91051595304944
epoch 847 start, epsilon: 0.001 time: 2020-06-29 14:48:07.781312
부족분 점수: 40.93193015354755
추가분 점수: 0
기타 점수: 30.0
[Episode 848] - Mean score over last 1 times:70.93193015354754
epoch 848 start, epsilon: 0.001 time: 2020-06-29 14:48:11.333773
부족분 점수: 40.92923897793083
추가분 점수: 0
기타 점수: 30.0
[Episode 849] - Mean score over last 1 times:70.92923897793082
epoch 849 start, epsilon: 0.001 time: 2020-06-29 14:48:14.808446
부족분 점수: 40.934621329164266
추가분 점수: 0
기타 점수: 30.0
[Episode 850] - Mean score over last 1 times:70.93462132916426
epoch 850 start, epsilon: 0.001 time: 2020-06-29 14:48:18.259245
부족분 점수: 40.93058456573918
추가분 점수: 0
기타 점수: 30.0
[Episode 851] - Mean score over last 1 times:70.93058456573918
epoch 851 start, epsilon: 0.001 time: 2020-06-29 14:48:21.732344
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 852] - Mean score over last 1 times:70.62442647391788
epoch 852 start, epsilon: 0.001 time: 2020-06-29 14:48:25.173711
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 853] - Mean score over last 1 times:70.62442647391788
epoch 853 start, epsilon: 0.001 time: 2020-06-29 14:48:28.632053
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 854] - Mean score over last 1 times:70.62442647391788
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epoch 854 start, epsilon: 0.001 time: 2020-06-29 14:48:32.071361
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 855] - Mean score over last 1 times:70.62442647391788
epoch 855 start, epsilon: 0.001 time: 2020-06-29 14:48:35.509472
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 856] - Mean score over last 1 times:70.62442647391788
epoch 856 start, epsilon: 0.001 time: 2020-06-29 14:48:38.959885
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 857] - Mean score over last 1 times:70.62442647391788
epoch 857 start, epsilon: 0.001 time: 2020-06-29 14:48:42.419031
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 858] - Mean score over last 1 times:70.62442647391788
epoch 858 start, epsilon: 0.001 time: 2020-06-29 14:48:45.868921
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 859] - Mean score over last 1 times:70.62442647391788
epoch 859 start, epsilon: 0.001 time: 2020-06-29 14:48:49.316378
부족분 점수: 40.54258524283405
추가분 점수: 0.00022303578741222907
기타 점수: 30.0
[Episode 860] - Mean score over last 1 times:70.54280827862146
epoch 860 start, epsilon: 0.001 time: 2020-06-29 14:48:52.872678
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 861] - Mean score over last 1 times:70.62442647391788
epoch 861 start, epsilon: 0.001 time: 2020-06-29 14:48:56.320858
부족분 점수: 40.62442647391787
추가분 점수: 0.007749111159378597
기타 점수: 30.0
[Episode 862] - Mean score over last 1 times:70.63217558507725
epoch 862 start, epsilon: 0.001 time: 2020-06-29 14:48:59.787261
부족분 점수: 40.66444849486173
추가분 점수: 0
기타 점수: 30.0
[Episode 863] - Mean score over last 1 times:70.66444849486173
epoch 863 start, epsilon: 0.001 time: 2020-06-29 14:49:03.311675
부족분 점수: 39.05807317355656
추가분 점수: 0
기타 점수: 30.0
[Episode 864] - Mean score over last 1 times:69.05807317355655
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epoch 864 start, epsilon: 0.001 time: 2020-06-29 14:49:06.810980
부족분 점수: 40.66534708945978
추가분 점수: 0
기타 점수: 30.0
[Episode 865] - Mean score over last 1 times:70.66534708945977
epoch 865 start, epsilon: 0.001 time: 2020-06-29 14:49:10.236088
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 866] - Mean score over last 1 times:70.62442647391788
epoch 866 start, epsilon: 0.001 time: 2020-06-29 14:49:13.688599
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 867] - Mean score over last 1 times:70.62442647391788
epoch 867 start, epsilon: 0.001 time: 2020-06-29 14:49:17.151902
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 868] - Mean score over last 1 times:70.62442647391788
epoch 868 start, epsilon: 0.001 time: 2020-06-29 14:49:20.586611
부족분 점수: 40.61078626873723
추가분 점수: 0
기타 점수: 30.0
[Episode 869] - Mean score over last 1 times:70.61078626873723
epoch 869 start, epsilon: 0.001 time: 2020-06-29 14:49:24.041303
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 870] - Mean score over last 1 times:70.62442647391788
epoch 870 start, epsilon: 0.001 time: 2020-06-29 14:49:27.665726
부족분 점수: 40.570787288680506
추가분 점수: 0
기타 점수: 30.0
[Episode 871] - Mean score over last 1 times:70.5707872886805
epoch 871 start, epsilon: 0.001 time: 2020-06-29 14:49:31.178888
부족분 점수: 40.55652497954737
추가분 점수: 0
기타 점수: 30.0
[Episode 872] - Mean score over last 1 times:70.55652497954736
epoch 872 start, epsilon: 0.001 time: 2020-06-29 14:49:34.644705
부족분 점수: 40.64488678168882
추가분 점수: 0
기타 점수: 30.0
[Episode 873] - Mean score over last 1 times:70.64488678168883
epoch 873 start, epsilon: 0.001 time: 2020-06-29 14:49:38.106498
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 874] - Mean score over last 1 times:70.62442647391788
epoch 874 start, epsilon: 0.001 time: 2020-06-29 14:49:41.540464
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부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 875] - Mean score over last 1 times:70.62442647391788
epoch 875 start, epsilon: 0.001 time: 2020-06-29 14:49:45.006869
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 876] - Mean score over last 1 times:70.62442647391788
epoch 876 start, epsilon: 0.001 time: 2020-06-29 14:49:48.427584
부족분 점수: 40.62442647391787
추가분 점수: 0
기타 점수: 30.0
[Episode 877] - Mean score over last 1 times:70.62442647391788
epoch 877 start, epsilon: 0.001 time: 2020-06-29 14:49:51.852881
부족분 점수: 40.15360130601893
추가분 점수: 0.381061865396366
기타 점수: 30.0
[Episode 878] - Mean score over last 1 times:70.5346631714153
epoch 878 start, epsilon: 0.001 time: 2020-06-29 14:49:55.288679
부족분 점수: 40.15360130601893
추가분 점수: 0.3789089249029898
기타 점수: 30.0
[Episode 879] - Mean score over last 1 times:70.53251023092191
epoch 879 start, epsilon: 0.001 time: 2020-06-29 14:49:58.746746
부족분 점수: 40.15360130601893
추가분 점수: 0.381061865396366
기타 점수: 30.0
[Episode 880] - Mean score over last 1 times:70.5346631714153
epoch 880 start, epsilon: 0.001 time: 2020-06-29 14:50:02.173772
부족분 점수: 40.15360130601893
추가분 점수: 0.381061865396366
기타 점수: 30.0
[Episode 881] - Mean score over last 1 times:70.5346631714153
epoch 881 start, epsilon: 0.001 time: 2020-06-29 14:50:05.577684
부족분 점수: 40.15360130601893
추가분 점수: 0.381061865396366
기타 점수: 30.0
[Episode 882] - Mean score over last 1 times:70.5346631714153
epoch 882 start, epsilon: 0.001 time: 2020-06-29 14:50:09.108946
부족분 점수: 39.27335339836189
추가분 점수: 0.6391345474139976
기타 점수: 30.0
[Episode 883] - Mean score over last 1 times:69.9124879457759
epoch 883 start, epsilon: 0.001 time: 2020-06-29 14:50:12.572703
부족분 점수: 39.22242996568751
추가분 점수: 0.6727140291046352
기타 점수: 30.0
[Episode 884] - Mean score over last 1 times:69.89514399479214
epoch 884 start, epsilon: 0.001 time: 2020-06-29 14:50:16.009140
부족분 점수: 39.22242996568751
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추가분 점수: 0.6541701087191942
기타 점수: 30.0
[Episode 885] - Mean score over last 1 times:69.8766000744067
epoch 885 start, epsilon: 0.001 time: 2020-06-29 14:50:19.435302
부족분 점수: 39.22242996568751
추가분 점수: 0.653138491399452
기타 점수: 30.0
[Episode 886] - Mean score over last 1 times:69.87556845708696
epoch 886 start, epsilon: 0.001 time: 2020-06-29 14:50:22.897163
부족분 점수: 39.21515518959117
추가분 점수: 0.6545934466187187
기타 점수: 30.0
[Episode 887] - Mean score over last 1 times:69.86974863620989
epoch 887 start, epsilon: 0.001 time: 2020-06-29 14:50:26.336804
부족분 점수: 39.22242996568751
추가분 점수: 0.6755803154635376
기타 점수: 30.0
[Episode 888] - Mean score over last 1 times:69.89801028115104
epoch 888 start, epsilon: 0.001 time: 2020-06-29 14:50:29.815374
부족분 점수: 39.17976438696033
추가분 점수: 2.9061974763777143
기타 점수: 30.0
[Episode 889] - Mean score over last 1 times:72.08596186333804
epoch 889 start, epsilon: 0.001 time: 2020-06-29 14:50:33.286406
부족분 점수: 39.22242996568751
추가분 점수: 3.468167785583347
기타 점수: 30.0
[Episode 890] - Mean score over last 1 times:72.69059775127086
epoch 890 start. epsilon: 0.001 time: 2020-06-29 14:50:36.781094
부족분 점수: 39.22955728010622
추가분 점수: 3.4780753670490117
기타 점수: 30.0
[Episode 891] - Mean score over last 1 times:72.70763264715524
epoch 891 start, epsilon: 0.001 time: 2020-06-29 14:50:40.219092
부족분 점수: 39.22242996568751
추가분 점수: 3.468167785583347
기타 점수: 30.0
[Episode 892] - Mean score over last 1 times:72.69059775127086
epoch 892 start, epsilon: 0.001 time: 2020-06-29 14:50:43.660552
부족분 점수: 39.22242996568751
추가분 점수: 3.486124316952901
기타 점수: 30.0
[Episode 893] - Mean score over last 1 times:72.70855428264042
epoch 893 start, epsilon: 0.001 time: 2020-06-29 14:50:47.130193
부족분 점수: 37.12994876013914
추가분 점수: 0.5009850747277422
기타 점수: 30.0
[Episode 894] - Mean score over last 1 times:67.63093383486688
epoch 894 start, epsilon: 0.001 time: 2020-06-29 14:50:50.571705
부족분 점수: 37.12994876013914
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추가분 점수: 0.5009850747277422
기타 점수: 30.0
[Episode 895] - Mean score over last 1 times:67.63093383486688
epoch 895 start, epsilon: 0.001 time: 2020-06-29 14:50:54.056393
부족분 점수: 37.12994876013914
추가분 점수: 0.5009850747277422
기타 점수: 30.0
[Episode 896] - Mean score over last 1 times:67.63093383486688
epoch 896 start, epsilon: 0.001 time: 2020-06-29 14:50:57.504778
부족분 점수: 37.36631907696363
추가분 점수: 0
기타 점수: 30.0
[Episode 897] - Mean score over last 1 times:67.36631907696363
epoch 897 start, epsilon: 0.001 time: 2020-06-29 14:51:00.992104
부족분 점수: 37.13436032199486
추가분 점수: 0.41195262916490893
기타 점수: 30.0
[Episode 898] - Mean score over last 1 times:67.54631295115976
epoch 898 start, epsilon: 0.001 time: 2020-06-29 14:51:04.447405
부족분 점수: 37.12994876013914
추가분 점수: 0.5009850747277422
기타 점수: 30.0
[Episode 899] - Mean score over last 1 times:67.63093383486688
epoch 899 start, epsilon: 0.001 time: 2020-06-29 14:51:07.889310
부족분 점수: 37.12994876013914
추가분 점수: 0.5009850747277422
기타 점수: 30.0
[Episode 900] - Mean score over last 1 times:67.63093383486688
epoch 900 start. epsilon: 0.001 time: 2020-06-29 14:51:11.312510
부족분 점수: 37.08993749160928
추가분 점수: 0.5296989354802939
기타 점수: 30.0
[Episode 901] - Mean score over last 1 times:67.61963642708957
epoch 901 start, epsilon: 0.001 time: 2020-06-29 14:51:14.801485
부족분 점수: 43.88282725816822
추가분 점수: 4.8076101285282125
기타 점수: 30.0
[Episode 902] - Mean score over last 1 times:78.69043738669643
epoch 902 start, epsilon: 0.001 time: 2020-06-29 14:51:18.246963
부족분 점수: 37.12994876013914
추가분 점수: 0.5171413447829143
기타 점수: 30.0
[Episode 903] - Mean score over last 1 times:67.64709010492206
epoch 903 start, epsilon: 0.001 time: 2020-06-29 14:51:21.707124
부족분 점수: 37.132792005610916
추가분 점수: 0.47700473382706443
기타 점수: 30.0
[Episode 904] - Mean score over last 1 times:67.60979673943798
epoch 904 start, epsilon: 0.001 time: 2020-06-29 14:51:25.156155
부족분 점수: 37.12994876013914
추가분 점수: 0.22638869730817968
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2020. 6. 29. Untitled - Jupyter Notebook 기타 점수: 30.0 [Episode 905] - Mean score over last 1 times:67.35633745744732 epoch 905 start, epsilon: 0.001 time: 2020-06-29 14:51:28.587485 부족분 점수: 37.12994876013914 추가분 점수: 0.2667716921504004 기타 점수: 30.0 [Episode 906] - Mean score over last 1 times:67.39672045228954 epoch 906 start, epsilon: 0.001 time: 2020-06-29 14:51:32.024378 부족분 점수: 37.12994876013914 추가분 점수: 0 기타 점수: 30.0 [Episode 907] - Mean score over last 1 times:67.12994876013914 epoch 907 start, epsilon: 0.001 time: 2020-06-29 14:51:35.470487 부족분 점수: 37.12994876013914 추가분 점수: 0 기타 점수: 30.0 [Episode 908] - Mean score over last 1 times:67.12994876013914 epoch 908 start. epsilon: 0.001 time: 2020-06-29 14:51:38.931032 부족분 점수: 37.13436032199486 추가분 점수: 0 기타 점수: 30.0 [Episode 909] - Mean score over last 1 times:67.13436032199486 epoch 909 start, epsilon: 0.001 time: 2020-06-29 14:51:42.407364 부족분 점수: 37.13436032199486 추가분 점수: 0 기타 점수: 30.0 [Episode 910] - Mean score over last 1 times:67.13436032199486 epoch 910 start, epsilon: 0.001 time: 2020-06-29 14:51:45.883523 부족분 점수: 37.13436032199486 추가분 점수: 0 기타 점수: 30.0 [Episode 911] - Mean score over last 1 times:67.13436032199486 epoch 911 start, epsilon: 0.001 time: 2020-06-29 14:51:49.303088 부족분 점수: 37.13436032199486 추가분 점수: 0 기타 점수: 30.0 [Episode 912] - Mean score over last 1 times:67.13436032199486 epoch 912 start, epsilon: 0.001 time: 2020-06-29 14:51:52.737250 부족분 점수: 37.13436032199486 추가분 점수: 0 기타 점수: 30.0 [Episode 913] - Mean score over last 1 times:67.13436032199486 epoch 913 start, epsilon: 0.001 time: 2020-06-29 14:51:56.164907 부족분 점수: 37.968775296973995 추가분 점수: 0 기타 점수: 30.0 [Episode 914] - Mean score over last 1 times:67.968775296974 epoch 914 start, epsilon: 0.001 time: 2020-06-29 14:51:59.638640 부족분 점수: 37.968775296973995

기타 점수: 30.0

추가분 점수: 0

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[Episode 915] - Mean score over last 1 times:67.968775296974
epoch 915 start, epsilon: 0.001 time: 2020-06-29 14:52:03.072823
부족분 점수: 37.904767712528376
추가분 점수: 0
기타 점수: 30.0
[Episode 916] - Mean score over last 1 times:67.90476771252838
epoch 916 start, epsilon: 0.001 time: 2020-06-29 14:52:06.544538
부족분 점수: 37.968775296973995
추가분 점수: 0
기타 점수: 30.0
[Episode 917] - Mean score over last 1 times:67.968775296974
epoch 917 start, epsilon: 0.001 time: 2020-06-29 14:52:10.077304
부족분 점수: 37.968775296973995
추가분 점수: 0
기타 점수: 30.0
[Episode 918] - Mean score over last 1 times:67.968775296974
epoch 918 start, epsilon: 0.001 time: 2020-06-29 14:52:13.528821
부족분 점수: 37.968775296973995
추가분 점수: 0
기타 점수: 30.0
[Episode 919] - Mean score over last 1 times:67.968775296974
epoch 919 start, epsilon: 0.001 time: 2020-06-29 14:52:16.963884
부족분 점수: 41.599329418020986
추가분 점수: 0
기타 점수: 30.0
[Episode 920] - Mean score over last 1 times:71.59932941802099
epoch 920 start, epsilon: 0.001 time: 2020-06-29 14:52:20.472765
부족분 점수: 41.599329418020986
추가분 점수: 0
기타 점수: 30.0
[Episode 921] - Mean score over last 1 times:71.59932941802099
epoch 921 start, epsilon: 0.001 time: 2020-06-29 14:52:23.949920
부족분 점수: 41.59574118386536
추가분 점수: 0
기타 점수: 30.0
[Episode 922] - Mean score over last 1 times:71.59574118386536
epoch 922 start, epsilon: 0.001 time: 2020-06-29 14:52:27.385039
부족분 점수: 41.59035883263192
추가분 점수: 0
기타 점수: 30.0
[Episode 923] - Mean score over last 1 times:71.59035883263192
epoch 923 start, epsilon: 0.001 time: 2020-06-29 14:52:30.842113
부족분 점수: 41.599329418020986
추가분 점수: 0
기타 점수: 30.0
[Episode 924] - Mean score over last 1 times:71.59932941802099
epoch 924 start, epsilon: 0.001 time: 2020-06-29 14:52:34.271849
부족분 점수: 41.599329418020986
추가분 점수: 0
기타 점수: 30.0
[Episode 925] - Mean score over last 1 times:71.59932941802099
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epoch 925 start, epsilon: 0.001 time: 2020-06-29 14:52:37.695974
부족분 점수: 41.599329418020986
추가분 점수: 0
기타 점수: 30.0
[Episode 926] - Mean score over last 1 times:71.59932941802099
epoch 926 start, epsilon: 0.001 time: 2020-06-29 14:52:41.178278
부족분 점수: 41.60543064493286
추가분 점수: 0
기타 점수: 30.0
[Episode 927] - Mean score over last 1 times:71.60543064493285
epoch 927 start, epsilon: 0.001 time: 2020-06-29 14:52:44.622796
부족분 점수: 42.645218263251664
추가분 점수: 0
기타 점수: 30.0
[Episode 928] - Mean score over last 1 times:72.64521826325166
epoch 928 start, epsilon: 0.001 time: 2020-06-29 14:52:48.090257
부족분 점수: 42.66233303421142
추가분 점수: 0
기타 점수: 30.0
[Episode 929] - Mean score over last 1 times:72.66233303421143
epoch 929 start, epsilon: 0.001 time: 2020-06-29 14:52:51.540359
부족분 점수: 42.66233303421142
추가분 점수: 0
기타 점수: 30.0
[Episode 930] - Mean score over last 1 times:72.66233303421143
epoch 930 start, epsilon: 0.001 time: 2020-06-29 14:52:54.989486
부족분 점수: 46.77152011177595
추가분 점수: 0
기타 점수: 30.0
[Episode 931] - Mean score over last 1 times:76.77152011177594
epoch 931 start, epsilon: 0.001 time: 2020-06-29 14:52:58.432976
부족분 점수: 42.83463586028375
추가분 점수: 0
기타 점수: 30.0
[Episode 932] - Mean score over last 1 times:72.83463586028375
epoch 932 start, epsilon: 0.001 time: 2020-06-29 14:53:01.883381
부족분 점수: 42.83463586028375
추가분 점수: 0
기타 점수: 30.0
[Episode 933] - Mean score over last 1 times:72.83463586028375
epoch 933 start, epsilon: 0.001 time: 2020-06-29 14:53:05.329709
부족분 점수: 42.83463586028375
추가분 점수: 0
기타 점수: 30.0
[Episode 934] - Mean score over last 1 times:72.83463586028375
epoch 934 start, epsilon: 0.001 time: 2020-06-29 14:53:08.772909
부족분 점수: 41.802055431459046
추가분 점수: 0
기타 점수: 30.0
[Episode 935] - Mean score over last 1 times:71.80205543145905
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epoch 935 start, epsilon: 0.001 time: 2020-06-29 14:53:12.226278
부족분 점수: 41.7222663753889
추가분 점수: 0
기타 점수: 30.0
[Episode 936] - Mean score over last 1 times:71.7222663753889
epoch 936 start, epsilon: 0.001 time: 2020-06-29 14:53:15.681341
부족분 점수: 41.71590094630459
추가분 점수: 0
기타 점수: 30.0
[Episode 937] - Mean score over last 1 times:71.7159009463046
epoch 937 start. epsilon: 0.001 time: 2020-06-29 14:53:19.172503
부족분 점수: 41.71590094630459
추가분 점수: 0
기타 점수: 30.0
[Episode 938] - Mean score over last 1 times:71.7159009463046
epoch 938 start, epsilon: 0.001 time: 2020-06-29 14:53:22.615945
부족분 점수: 41.71949532469679
추가분 점수: 0
기타 점수: 30.0
[Episode 939] - Mean score over last 1 times:71.7194953246968
epoch 939 start, epsilon: 0.001 time: 2020-06-29 14:53:26.058379
부족분 점수: 41.71590094630459
추가분 점수: 0
기타 점수: 30.0
[Episode 940] - Mean score over last 1 times:71.7159009463046
epoch 940 start. epsilon: 0.001 time: 2020-06-29 14:53:29.480873
부족분 점수: 41.2667219238342
추가분 점수: 0
기타 점수: 30.0
[Episode 941] - Mean score over last 1 times:71.2667219238342
epoch 941 start, epsilon: 0.001 time: 2020-06-29 14:53:32.898019
부족분 점수: 41.2667219238342
추가분 점수: 0
기타 점수: 30.0
[Episode 942] - Mean score over last 1 times:71.2667219238342
epoch 942 start, epsilon: 0.001 time: 2020-06-29 14:53:36.340628
부족분 점수: 40.96665737862906
추가분 점수: 0
기타 점수: 30.0
[Episode 943] - Mean score over last 1 times:70.96665737862907
epoch 943 start, epsilon: 0.001 time: 2020-06-29 14:53:39.809372
부족분 점수: 40.96115982295997
추가분 점수: 0
기타 점수: 30.0
[Episode 944] - Mean score over last 1 times:70.96115982295997
epoch 944 start, epsilon: 0.001 time: 2020-06-29 14:53:43.262470
부족분 점수: 40.967887762001766
추가분 점수: 0
기타 점수: 30.0
[Episode 945] - Mean score over last 1 times:70.96788776200177
epoch 945 start, epsilon: 0.001 time: 2020-06-29 14:53:46.727969
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부족분 점수: 39.876330342421376
추가분 점수: 0
기타 점수: 30.0
[Episode 946] - Mean score over last 1 times:69.87633034242137
epoch 946 start, epsilon: 0.001 time: 2020-06-29 14:53:50.162900
부족분 점수: 39.876330342421376
추가분 점수: 0
기타 점수: 30.0
[Episode 947] - Mean score over last 1 times:69.87633034242137
epoch 947 start, epsilon: 0.001 time: 2020-06-29 14:53:53.571972
부족분 점수: 39.876330342421376
추가분 점수: 0
기타 점수: 30.0
[Episode 948] - Mean score over last 1 times:69.87633034242137
epoch 948 start, epsilon: 0.001 time: 2020-06-29 14:53:57.010627
부족분 점수: 39.86510943038933
추가분 점수: 0
기타 점수: 30.0
[Episode 949] - Mean score over last 1 times: 69.86510943038934
epoch 949 start. epsilon: 0.001 time: 2020-06-29 14:54:00.493968
부족분 점수: 39.876330342421376
추가분 점수: 0
기타 점수: 30.0
[Episode 950] - Mean score over last 1 times:69.87633034242137
epoch 950 start, epsilon: 0.001 time: 2020-06-29 14:54:03.931386
부족분 점수: 37.92876402844413
추가분 점수: 0
기타 점수: 30.0
[Episode 951] - Mean score over last 1 times:67.92876402844414
epoch 951 start, epsilon: 0.001 time: 2020-06-29 14:54:07.443246
부족분 점수: 40.24165743239113
추가분 점수: 0
기타 점수: 30.0
[Episode 952] - Mean score over last 1 times:70.24165743239112
epoch 952 start, epsilon: 0.001 time: 2020-06-29 14:54:10.941275
부족분 점수: 39.876330342421376
추가분 점수: 0
기타 점수: 30.0
[Episode 953] - Mean score over last 1 times:69.87633034242137
epoch 953 start, epsilon: 0.001 time: 2020-06-29 14:54:14.363309
부족분 점수: 39.58988603362802
추가분 점수: 0
기타 점수: 30.0
[Episode 954] - Mean score over last 1 times:69.58988603362802
epoch 954 start, epsilon: 0.001 time: 2020-06-29 14:54:17.807322
부족분 점수: 39.601099265364354
추가분 점수: 0
기타 점수: 30.0
[Episode 955] - Mean score over last 1 times:69.60109926536435
epoch 955 start, epsilon: 0.001 time: 2020-06-29 14:54:21.289993
부족분 점수: 39.605592238354596
```

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추가분 점수: 0
기타 점수: 30.0
```

[Episode 956] - Mean score over last 1 times:69.6055922383546

epoch 956 start, epsilon: 0.001 time: 2020-06-29 14:54:24.749472

부족분 점수: 39.58988603362802

추가분 점수: 0 기타 점수: 30.0

[Episode 957] - Mean score over last 1 times:69.58988603362802

epoch 957 start, epsilon: 0.001 time: 2020-06-29 14:54:28.195248

부족분 점수: 39.58988603362802

추가분 점수: 0 기타 점수: 30.0

[Episode 958] - Mean score over last 1 times:69.58988603362802

epoch 958 start, epsilon: 0.001 time: 2020-06-29 14:54:31.637218

부족분 점수: 39.091302740974655

추가분 점수: 0 기타 점수: 30.0

[Episode 959] - Mean score over last 1 times:69.09130274097465

epoch 959 start, epsilon: 0.001 time: 2020-06-29 14:54:35.158078

부족분 점수: 37.03576682990879 추가분 점수: 0.28107301718573785

기타 점수: 30.0

[Episode 960] - Mean score over last 1 times:67.31683984709453

epoch 960 start, epsilon: 0.001 time: 2020-06-29 14:54:38.556222

부족분 점수: 39.091302740974655

추가분 점수: 0 기타 점수: 30.0

[Episode 961] - Mean score over last 1 times:69.09130274097465

epoch 961 start, epsilon: 0.001 time: 2020-06-29 14:54:41.994991

부족분 점수: 38.71749967665955 추가분 점수: 0.0029572210601092053

기타 점수: 30.0

[Episode 962] - Mean score over last 1 times:68.72045689771966

epoch 962 start, epsilon: 0.001 time: 2020-06-29 14:54:45.453921

부족분 점수: 38.71749967665955 추가분 점수: 0.0029572210601092053

기타 점수: 30.0

[Episode 963] - Mean score over last 1 times:68.72045689771966

epoch 963 start, epsilon: 0.001 time: 2020-06-29 14:54:48.924189

부족분 점수: 38.71749967665955 추가분 점수: 0.03598863684889153

기타 점수: 30.0

[Episode 964] - Mean score over last 1 times:68.75348831350844

epoch 964 start, epsilon: 0.001 time: 2020-06-29 14:54:52.375261

부족분 점수: 38.71749967665955 추가분 점수: 0.0029572210601092053

기타 점수: 30.0

[Episode 965] - Mean score over last 1 times:68.72045689771966

epoch 965 start, epsilon: 0.001 time: 2020-06-29 14:54:55.851024

부족분 점수: 38.71749967665955 추가분 점수: 0.18636329703420662 기타 점수: 30.0

[Episode 966] - Mean score over last 1 times:68.90386297369375

epoch 966 start, epsilon: 0.001 time: 2020-06-29 14:54:59.295141

부족분 점수: 38.77569788543027 추가분 점수: 0.17638751454263968

기타 점수: 30.0

[Episode 967] - Mean score over last 1 times:68.9520853999729

epoch 967 start, epsilon: 0.001 time: 2020-06-29 14:55:02.800851

부족분 점수: 37.81316175347909

추가분 점수: 0 기타 점수: 30.0

[Episode 968] - Mean score over last 1 times:67.8131617534791

epoch 968 start, epsilon: 0.001 time: 2020-06-29 14:55:06.251899

부족분 점수: 38.71749967665955 추가분 점수: 0.15438316012218456

기타 점수: 30.0

[Episode 969] - Mean score over last 1 times:68.87188283678174

epoch 969 start, epsilon: 0.001 time: 2020-06-29 14:55:09.728196

부족분 점수: 38.71749967665955 추가분 점수: 0.18636329703420662

기타 점수: 30.0

[Episode 970] - Mean score over last 1 times:68.90386297369375

epoch 970 start, epsilon: 0.001 time: 2020-06-29 14:55:13.196660

부족분 점수: 37.094349053464995 추가분 점수: 0.24310163519639882

기타 점수: 30.0

[Episode 971] - Mean score over last 1 times:67.33745068866139

epoch 971 start, epsilon: 0.001 time: 2020-06-29 14:55:16.654866

부족분 점수: 38.6995508255857 추가분 점수: 0.2150814587523575

기타 점수: 30.0

[Episode 972] - Mean score over last 1 times:68.91463228433807

epoch 972 start, epsilon: 0.001 time: 2020-06-29 14:55:20.118368

부족분 점수: 39.22242996568751 추가분 점수: 3.508550780425568

기타 점수: 30.0

[Episode 973] - Mean score over last 1 times:72.73098074611308

epoch 973 start, epsilon: 0.001 time: 2020-06-29 14:55:23.537049

부족분 점수: 39.22242996568751 추가분 점수: 3.559165158000579

기타 점수: 30.0

[Episode 974] - Mean score over last 1 times:72.78159512368809

epoch 974 start, epsilon: 0.001 time: 2020-06-29 14:55:27.006965

부족분 점수: 39.22970474178385 추가분 점수: 0.19060589238431014

기타 점수: 30.0

[Episode 975] - Mean score over last 1 times:69.42031063416816

epoch 975 start, epsilon: 0.001 time: 2020-06-29 14:55:30.447841

부족분 점수: 39.22242996568751 추가분 점수: 3.5564690669946053

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[Episode 976] - Mean score over last 1 times:72.77889903268212
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epoch 976 start, epsilon: 0.001 time: 2020-06-29 14:55:33.887023
```

부족분 점수: 39.22242996568751 추가분 점수: 3.54982038860453

기타 점수: 30.0

[Episode 977] - Mean score over last 1 times:72.77225035429204

epoch 977 start, epsilon: 0.001 time: 2020-06-29 14:55:37.350527

부족분 점수: 39.22242996568751 추가분 점수: 3.5489337752677885

기타 점수: 30.0

[Episode 978] - Mean score over last 1 times:72.77136374095531

epoch 978 start, epsilon: 0.001 time: 2020-06-29 14:55:40.828520

부족분 점수: 39.22242996568751 추가분 점수: 3.1230411021777327

기타 점수: 30.0

[Episode 979] - Mean score over last 1 times:72.34547106786525

epoch 979 start, epsilon: 0.001 time: 2020-06-29 14:55:44.255282

부족분 점수: 39.2478916820247 추가분 점수: 2.3766662785557235

기타 점수: 30.0

[Episode 980] - Mean score over last 1 times:71.62455796058043

epoch 980 start, epsilon: 0.001 time: 2020-06-29 14:55:47.687509

부족분 점수: 39.70986454108851 추가분 점수: 2.7415847767937107

기타 점수: 30.0

[Episode 981] - Mean score over last 1 times:72.45144931788221

epoch 981 start, epsilon: 0.001 time: 2020-06-29 14:55:51.129937

부족분 점수: 39.70258976499217 추가분 점수: 2.8185997100534754

기타 점수: 30.0

[Episode 982] - Mean score over last 1 times:72.52118947504565

epoch 982 start, epsilon: 0.001 time: 2020-06-29 14:55:54.586727

부족분 점수: 39.70258976499217 추가분 점수: 2.7493062388885314

기타 점수: 30.0

[Episode 983] - Mean score over last 1 times:72.4518960038807

epoch 983 start, epsilon: 0.001 time: 2020-06-29 14:55:58.067438

부족분 점수: 39.70258976499217 추가분 점수: 2.747296459107187

기타 점수: 30.0

[Episode 984] - Mean score over last 1 times:72.44988622409936

epoch 984 start, epsilon: 0.001 time: 2020-06-29 14:56:01.540511

부족분 점수: 39.901736760629454 추가분 점수: 0.4210245944573465

기타 점수: 30.0

[Episode 985] - Mean score over last 1 times:70.3227613550868

epoch 985 start, epsilon: 0.001 time: 2020-06-29 14:56:04.980564

부족분 점수: 40.62442647391787 추가분 점수: 0.7073159117601602

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기타 점수: 30.0
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[Episode 986] - Mean score over last 1 times:71.33174238567804

epoch 986 start, epsilon: 0.001 time: 2020-06-29 14:56:08.479630

부족분 점수: 35.90231800540877 추가분 점수: 1.3747342233669624

기타 점수: 30.0

[Episode 987] - Mean score over last 1 times:67.27705222877574

epoch 987 start, epsilon: 0.001 time: 2020-06-29 14:56:11.906748

부족분 점수: 41.56825494157906 추가분 점수: 1.2040915700152643

기타 점수: 30.0

[Episode 988] - Mean score over last 1 times:72.77234651159432

epoch 988 start, epsilon: 0.001 time: 2020-06-29 14:56:15.319288

부족분 점수: 32.89139170952016 추가분 점수: 2.991255215304802

기타 점수: 30.0

[Episode 989] - Mean score over last 1 times:65.88264692482497

epoch 989 start, epsilon: 0.001 time: 2020-06-29 14:56:18.850191

부족분 점수: 32.95542694303033 추가분 점수: 3.1150265599986238

기타 점수: 30.0

[Episode 990] - Mean score over last 1 times:66.07045350302896

epoch 990 start, epsilon: 0.001 time: 2020-06-29 14:56:22.287540

부족분 점수: 32.89139170952016 추가분 점수: 3.1054071432279917

기타 점수: 30.0

[Episode 991] - Mean score over last 1 times:65.99679885274816

epoch 991 start, epsilon: 0.001 time: 2020-06-29 14:56:25.750667

부족분 점수: 32.89139170952016 추가분 점수: 3.1140189052014966

기타 점수: 30.0

[Episode 992] - Mean score over last 1 times:66.00541061472165

epoch 992 start, epsilon: 0.001 time: 2020-06-29 14:56:29.186136

부족분 점수: 32.89139170952016 추가분 점수: 3.0919359045529715

기타 점수: 30.0

[Episode 993] - Mean score over last 1 times:65.98332761407312

epoch 993 start, epsilon: 0.001 time: 2020-06-29 14:56:32.606549

부족분 점수: 32.89139170952016 추가분 점수: 3.100906489942039

기타 점수: 30.0

[Episode 994] - Mean score over last 1 times:65.9922981994622

epoch 994 start, epsilon: 0.001 time: 2020-06-29 14:56:36.059706

부족분 점수: 32.89139170952016 추가분 점수: 3.1054071432279917

기타 점수: 30.0

[Episode 995] - Mean score over last 1 times:65.99679885274816

epoch 995 start, epsilon: 0.001 time: 2020-06-29 14:56:39.497508

부족분 점수: 32.89139170952016 추가분 점수: 3.1098924359225255

[Episode 996] - Mean score over last 1 times:66.00128414544268

epoch 996 start, epsilon: 0.001 time: 2020-06-29 14:56:42.926792

부족분 점수: 32.89139170952016 추가분 점수: 3.1054071432279917

기타 점수: 30.0

[Episode 997] - Mean score over last 1 times:65.99679885274816

epoch 997 start, epsilon: 0.001 time: 2020-06-29 14:56:46.379645

부족분 점수: 32.905939725653695 추가분 점수: 4.417559859456732

기타 점수: 30.0

[Episode 998] - Mean score over last 1 times:67.32349958511043

epoch 998 start, epsilon: 0.001 time: 2020-06-29 14:56:49.823446

부족분 점수: 32.89139170952016 추가분 점수: 3.319342701860444

기타 점수: 30.0

[Episode 999] - Mean score over last 1 times:66.2107344113806

epoch 999 start, epsilon: 0.001 time: 2020-06-29 14:56:53.313249

부족분 점수: 32.87849649302338 추가분 점수: 3.3207779955226946

기타 점수: 30.0

[Episode 1000] - Mean score over last 1 times:66.19927448854608

epoch 1000 start, epsilon: 0.001 time: 2020-06-29 14:56:56.785677

부족분 점수: 32.795394157384 추가분 점수: 3.3489480913389924

기타 점수: 30.0

[Episode 1001] - Mean score over last 1 times:66.14434224872299

epoch 1001 start, epsilon: 0.001 time: 2020-06-29 14:57:00.233404

부족분 점수: 32.89139170952016 추가분 점수: 3.3207779955226946

기타 점수: 30.0

[Episode 1002] - Mean score over last 1 times:66.21216970504285

epoch 1002 start, epsilon: 0.001 time: 2020-06-29 14:57:03.743282

부족분 점수: 32.89139170952016 추가분 점수: 3.3207779955226946

기타 점수: 30.0

[Episode 1003] - Mean score over last 1 times:66.21216970504285

epoch 1003 start, epsilon: 0.001 time: 2020-06-29 14:57:07.178753

부족분 점수: 32.89139170952016 추가분 점수: 3.4291850622549402

기타 점수: 30.0

[Episode 1004] - Mean score over last 1 times:66.3205767717751

epoch 1004 start, epsilon: 0.001 time: 2020-06-29 14:57:10.587163

부족분 점수: 32.89139170952016 추가분 점수: 3.465082764402627

기타 점수: 30.0

[Episode 1005] - Mean score over last 1 times:66.35647447392279

epoch 1005 start, epsilon: 0.001 time: 2020-06-29 14:57:14.081552

부족분 점수: 35.90231800540877 추가분 점수: 1.5779118381927582

기타 점수: 30.0

[Episode 1006] - Mean score over last 1 times:67.48022984360153

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epoch 1006 start, epsilon: 0.001 time: 2020-06-29 14:57:17.526170
부족분 점수: 35.90231800540877
추가분 점수: 1.6060997522951026
기타 점수: 30.0
[Episode 1007] - Mean score over last 1 times:67.50841775770388
epoch 1007 start, epsilon: 0.001 time: 2020-06-29 14:57:20.915566
부족분 점수: 40.95181443914026
추가분 점수: 0.8378975282657919
기타 점수: 30.0
[Episode 1008] - Mean score over last 1 times:71.78971196740605
epoch 1008 start, epsilon: 0.001 time: 2020-06-29 14:57:24.343355
부족분 점수: 40.92515613273149
추가분 점수: 0.8432682054497542
기타 점수: 30.0
[Episode 1009] - Mean score over last 1 times:71.76842433818123
epoch 1009 start, epsilon: 0.001 time: 2020-06-29 14:57:27.806152
부족분 점수: 40.95181443914026
추가분 점수: 0.8048661124770096
기타 점수: 30.0
[Episode 1010] - Mean score over last 1 times:71.75668055161726
epoch 1010 start, epsilon: 0.001 time: 2020-06-29 14:57:31.233290
부족분 점수: 40.95181443914026
추가분 점수: 0.8048661124770096
기타 점수: 30.0
[Episode 1011] - Mean score over last 1 times:71.75668055161726
epoch 1011 start, epsilon: 0.001 time: 2020-06-29 14:57:34.702500
부족분 점수: 40.95181443914026
추가분 점수: 0.8048661124770096
기타 점수: 30.0
[Episode 1012] - Mean score over last 1 times:71.75668055161726
epoch 1012 start, epsilon: 0.001 time: 2020-06-29 14:57:38.157225
부족분 점수: 40.95181443914026
추가분 점수: 0.8003808197824758
기타 점수: 30.0
[Episode 1013] - Mean score over last 1 times:71.75219525892274
epoch 1013 start, epsilon: 0.001 time: 2020-06-29 14:57:41.571182
부족분 점수: 40.95181443914026
추가분 점수: 0.8048661124770096
기타 점수: 30.0
[Episode 1014] - Mean score over last 1 times:71.75668055161726
epoch 1014 start, epsilon: 0.001 time: 2020-06-29 14:57:45.000551
부족분 점수: 40.95181443914026
추가분 점수: 0.8110570452427779
기타 점수: 30.0
[Episode 1015] - Mean score over last 1 times:71.76287148438303
epoch 1015 start, epsilon: 0.001 time: 2020-06-29 14:57:48.448782
부족분 점수: 40.95181443914026
추가분 점수: 0.8120892769861787
기타 점수: 30.0
[Episode 1016] - Mean score over last 1 times:71.76390371612644
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epoch 1016 start, epsilon: 0.001 time: 2020-06-29 14:57:51.920391
부족분 점수: 40.95181443914026
추가분 점수: 0.8210598623752441
기타 점수: 30.0
[Episode 1017] - Mean score over last 1 times:71.7728743015155
epoch 1017 start, epsilon: 0.001 time: 2020-06-29 14:57:55.343043
부족분 점수: 40.95181443914026
추가분 점수: 0.5967184246914758
기타 점수: 30.0
[Episode 1018] - Mean score over last 1 times:71.54853286383172
epoch 1018 start, epsilon: 0.001 time: 2020-06-29 14:57:58.800381
부족분 점수: 40.95181443914026
추가분 점수: 0.6236301808586764
기타 점수: 30.0
[Episode 1019] - Mean score over last 1 times:71.57544461999893
epoch 1019 start, epsilon: 0.001 time: 2020-06-29 14:58:02.268388
부족분 점수: 40.92515613273149
추가분 점수: 0.8221719691940277
기타 점수: 30.0
[Episode 1020] - Mean score over last 1 times:71.74732810192552
epoch 1020 start, epsilon: 0.001 time: 2020-06-29 14:58:05.777301
부족분 점수: 40.95181443914026
추가분 점수: 0.8072433176051108
기타 점수: 30.0
[Episode 1021] - Mean score over last 1 times:71.75905775674536
epoch 1021 start, epsilon: 0.001 time: 2020-06-29 14:58:09.291116
부족분 점수: 40.15360130601893
추가분 점수: 1.3868654040465334
기타 점수: 30.0
[Episode 1022] - Mean score over last 1 times:71.54046671006546
epoch 1022 start, epsilon: 0.001 time: 2020-06-29 14:58:12.746139
부족분 점수: 40.15360130601893
추가분 점수: 1.3868654040465334
기타 점수: 30.0
[Episode 1023] - Mean score over last 1 times:71.54046671006546
epoch 1023 start, epsilon: 0.001 time: 2020-06-29 14:58:16.184481
부족분 점수: 40.15360130601893
추가분 점수: 1.3938624606500039
기타 점수: 30.0
[Episode 1024] - Mean score over last 1 times:71.54746376666893
epoch 1024 start, epsilon: 0.001 time: 2020-06-29 14:58:19.624274
부족분 점수: 40.15360130601893
추가분 점수: 1.427248398888754
기타 점수: 30.0
[Episode 1025] - Mean score over last 1 times:71.58084970490768
epoch 1025 start, epsilon: 0.001 time: 2020-06-29 14:58:23.148113
부족분 점수: 39.26460400548926
추가분 점수: 1.831364054311364
기타 점수: 30.0
[Episode 1026] - Mean score over last 1 times:71.09596805980063
```

```
epoch 1026 start, epsilon: 0.001 time: 2020-06-29 14:58:26.556213
부족분 점수: 39.129479954889014
추가분 점수: 1.898926079611487
기타 점수: 30.0
[Episode 1027] - Mean score over last 1 times:71.0284060345005
epoch 1027 start, epsilon: 0.001 time: 2020-06-29 14:58:30.012373
부족분 점수: 39.129479954889014
추가분 점수: 1.898926079611487
기타 점수: 30.0
[Episode 1028] - Mean score over last 1 times:71.0284060345005
epoch 1028 start, epsilon: 0.001 time: 2020-06-29 14:58:33.447472
부족분 점수: 42.111778716548855
추가분 점수: 2.909082195446322
기타 점수: 30.0
[Episode 1029] - Mean score over last 1 times:75.02086091199519
epoch 1029 start, epsilon: 0.001 time: 2020-06-29 14:58:36.882069
부족분 점수: 39.129479954889014
추가분 점수: 1.898926079611487
기타 점수: 30.0
[Episode 1030] - Mean score over last 1 times:71.0284060345005
epoch 1030 start, epsilon: 0.001 time: 2020-06-29 14:58:40.338133
부족분 점수: 39.129479954889014
추가분 점수: 1.8944407869169533
기타 점수: 30.0
[Episode 1031] - Mean score over last 1 times:71.02392074180597
epoch 1031 start, epsilon: 0.001 time: 2020-06-29 14:58:43.780268
부족분 점수: 39.129479954889014
추가분 점수: 2.4158234982026583
기타 점수: 30.0
[Episode 1032] - Mean score over last 1 times:71.54530345309166
epoch 1032 start, epsilon: 0.001 time: 2020-06-29 14:58:47.246206
부족분 점수: 39.129479954889014
추가분 점수: 2.4158234982026583
기타 점수: 30.0
[Episode 1033] - Mean score over last 1 times:71.54530345309166
epoch 1033 start, epsilon: 0.001 time: 2020-06-29 14:58:50.657426
부족분 점수: 36.68793391750687
추가분 점수: 1.4863989643274844
기타 점수: 30.0
[Episode 1034] - Mean score over last 1 times:68.17433288183435
epoch 1034 start, epsilon: 0.001 time: 2020-06-29 14:58:54.144554
부족분 점수: 39.380476626863285
추가분 점수: 3.2441304876096866
기타 점수: 30.0
[Episode 1035] - Mean score over last 1 times:72.62460711447298
epoch 1035 start, epsilon: 0.001 time: 2020-06-29 14:58:57.574249
부족분 점수: 36.668367596156536
추가분 점수: 1.48347922311044
기타 점수: 30.0
[Episode 1036] - Mean score over last 1 times:68.15184681926698
epoch 1036 start, epsilon: 0.001 time: 2020-06-29 14:59:01.033395
```

2020. 6. 29. 부족분 점수: 36.668367596156536 추가분 점수: 1.4895853654115743 기타 점수: 30.0 [Episode 1037] - Mean score over last 1 times:68.1579529615681 epoch 1037 start, epsilon: 0.001 time: 2020-06-29 14:59:04.412390 부족분 점수: 36.62024132717968 추가분 점수: 3.221356260347279 기타 점수: 30.0 [Episode 1038] - Mean score over last 1 times:69.84159758752696 epoch 1038 start, epsilon: 0.001 time: 2020-06-29 14:59:07.861805 부족분 점수: 36.572632710133654 추가분 점수: 3.2664445115531615 기타 점수: 30.0 [Episode 1039] - Mean score over last 1 times:69.83907722168681 epoch 1039 start, epsilon: 0.001 time: 2020-06-29 14:59:11.353094 부족분 점수: 36.582948883331085 추가분 점수: 3.1664857701017146 기타 점수: 30.0 [Episode 1040] - Mean score over last 1 times:69.7494346534328 epoch 1040 start. epsilon: 0.001 time: 2020-06-29 14:59:14.734959 부족분 점수: 36.571342420454414 추가분 점수: 3.233803254786438 기타 점수: 30.0 [Episode 1041] - Mean score over last 1 times:69.80514567524085 부족분 점수: 36.571342420454414 추가분 점수: 3.2251914928129333 기타 점수: 30.0 부족분 점수: 36.33314726536927 추가분 점수: 3.292143395421867

epoch 1041 start, epsilon: 0.001 time: 2020-06-29 14:59:18.175972

[Episode 1042] - Mean score over last 1 times:69.79653391326735

epoch 1042 start, epsilon: 0.001 time: 2020-06-29 14:59:21.665579

기타 점수: 30.0

[Episode 1043] - Mean score over last 1 times:69.62529066079114

epoch 1043 start, epsilon: 0.001 time: 2020-06-29 14:59:25.150861

부족분 점수: 36.22058485144618 추가분 점수: 2.42143871600202

기타 점수: 30.0

[Episode 1044] - Mean score over last 1 times:68.6420235674482

epoch 1044 start, epsilon: 0.001 time: 2020-06-29 14:59:28.571848

부족분 점수: 36.39447903478959 추가분 점수: 3.2782770823355345

기타 점수: 30.0

[Episode 1045] - Mean score over last 1 times:69.67275611712512

epoch 1045 start, epsilon: 0.001 time: 2020-06-29 14:59:32.058010

부족분 점수: 36.39447903478959 추가분 점수: 3.284735903815663

기타 점수: 30.0

[Episode 1046] - Mean score over last 1 times:69.67921493860526

epoch 1046 start, epsilon: 0.001 time: 2020-06-29 14:59:35.555606

부족분 점수: 35.54871719092877

2020. 6. 29. Untitled - Jupyter Notebook 추가분 점수: 5.917524069278725 기타 점수: 30.0 [Episode 1047] - Mean score over last 1 times:71.4662412602075 epoch 1047 start, epsilon: 0.001 time: 2020-06-29 14:59:39.004711 부족분 점수: 36.39447903478959 추가분 점수: 3.2782770823355345 기타 점수: 30.0 [Episode 1048] - Mean score over last 1 times:69.67275611712512 epoch 1048 start, epsilon: 0.001 time: 2020-06-29 14:59:42.446711 부족분 점수: 36.390611237870125 추가분 점수: 3.2611008690100984 기타 점수: 30.0 [Episode 1049] - Mean score over last 1 times:69.65171210688023 epoch 1049 start, epsilon: 0.001 time: 2020-06-29 14:59:45.871866 부족분 점수: 36.39447903478959 추가분 점수: 3.298020972122677 기타 점수: 30.0 [Episode 1050] - Mean score over last 1 times:69.69250000691227 epoch 1050 start, epsilon: 0.001 time: 2020-06-29 14:59:49.317094 부족분 점수: 36.35578570500353 추가분 점수: 3.5036169584615817 기타 점수: 30.0 [Episode 1051] - Mean score over last 1 times:69.85940266346512 epoch 1051 start, epsilon: 0.001 time: 2020-06-29 14:59:52.790146 부족분 점수: 36.36352437096074 추가분 점수: 3.4433549006277264 기타 점수: 30.0 [Episode 1052] - Mean score over last 1 times:69.80687927158846 epoch 1052 start. epsilon: 0.001 time: 2020-06-29 14:59:56.226252 부족분 점수: 36.33256970713189 추가분 점수: 3.634400720350295 기타 점수: 30.0 [Episode 1053] - Mean score over last 1 times:69.96697042748218 epoch 1053 start, epsilon: 0.001 time: 2020-06-29 14:59:59.677365 부족분 점수: 36.33256970713189 추가분 점수: 3.634400720350295 기타 점수: 30.0 [Episode 1054] - Mean score over last 1 times:69.96697042748218 epoch 1054 start, epsilon: 0.001 time: 2020-06-29 15:00:03.122993 부족분 점수: 36.339018083409854 추가분 점수: 3.5957104626825176 기타 점수: 30.0 [Episode 1055] - Mean score over last 1 times:69.93472854609237 epoch 1055 start, epsilon: 0.001 time: 2020-06-29 15:00:06.576109 부족분 점수: 37.39887892259583 추가분 점수: 1.266113337202155 기타 점수: 30.0 [Episode 1056] - Mean score over last 1 times:68.66499225979798 epoch 1056 start, epsilon: 0.001 time: 2020-06-29 15:00:10.139157 부족분 점수: 37.398233777756204 추가분 점수: 1.2819580944633358

localhost:8888/notebooks/competitions-master/process optimization/DQN/process optimization/Untitled.ipynb

```
2020. 6. 29.
                                             Untitled - Jupyter Notebook
  기타 점수: 30.0
  [Episode 1057] - Mean score over last 1 times:68.68019187221954
  epoch 1057 start, epsilon: 0.001 time: 2020-06-29 15:00:13.614258
  부족분 점수: 37.25985174571586
  추가분 점수: 0.3742098127758964
  기타 점수: 30.0
  [Episode 1058] - Mean score over last 1 times:67.63406155849175
  epoch 1058 start, epsilon: 0.001 time: 2020-06-29 15:00:17.044525
  부족분 점수: 37.398233777756204
  추가분 점수: 0.05538353399898055
  기타 점수: 30.0
  [Episode 1059] - Mean score over last 1 times:67.45361731175518
  epoch 1059 start, epsilon: 0.001 time: 2020-06-29 15:00:20.519311
  부족분 점수: 37.890603711180326
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1060] - Mean score over last 1 times:67.89060371118032
  epoch 1060 start, epsilon: 0.001 time: 2020-06-29 15:00:24.006129
  부족분 점수: 41.78616029145801
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1061] - Mean score over last 1 times:71.786160291458
  epoch 1061 start. epsilon: 0.001 time: 2020-06-29 15:00:27.476906
  부족분 점수: 41.86656530724409
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1062] - Mean score over last 1 times:71.86656530724409
  epoch 1062 start, epsilon: 0.001 time: 2020-06-29 15:00:30.927072
  부족분 점수: 42.16223057906665
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1063] - Mean score over last 1 times:72.16223057906666
  epoch 1063 start, epsilon: 0.001 time: 2020-06-29 15:00:34.366494
  부족분 점수: 42.21918765205066
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1064] - Mean score over last 1 times:72.21918765205066
  epoch 1064 start, epsilon: 0.001 time: 2020-06-29 15:00:37.835832
  부족분 점수: 42.21918765205066
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1065] - Mean score over last 1 times:72.21918765205066
  epoch 1065 start, epsilon: 0.001 time: 2020-06-29 15:00:41.278988
  부족분 점수: 42.218278305038616
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1066] - Mean score over last 1 times:72.21827830503861
  epoch 1066 start, epsilon: 0.001 time: 2020-06-29 15:00:44.749000
  부족분 점수: 42.18427456381296
  추가분 점수: 0
```

Untitled - Jupyter Notebook 기타 점수: 30.0 [Episode 1067] - Mean score over last 1 times:72.18427456381296 epoch 1067 start, epsilon: 0.001 time: 2020-06-29 15:00:48.161009 부족분 점수: 42.21918765205066 추가분 점수: 0 기타 점수: 30.0 [Episode 1068] - Mean score over last 1 times:72.21918765205066 epoch 1068 start, epsilon: 0.001 time: 2020-06-29 15:00:51.556250 부족분 점수: 42.205547446870014 추가분 점수: 0 기타 점수: 30.0 [Episode 1069] - Mean score over last 1 times:72.20554744687001 epoch 1069 start, epsilon: 0.001 time: 2020-06-29 15:00:55.033272 부족분 점수: 42.21250579478311 추가분 점수: 0 기타 점수: 30.0 [Episode 1070] - Mean score over last 1 times:72.21250579478311 epoch 1070 start, epsilon: 0.001 time: 2020-06-29 15:00:58.515561 부족분 점수: 42.2166746592944 추가분 점수: 0 기타 점수: 30.0 [Episode 1071] - Mean score over last 1 times:72.2166746592944 epoch 1071 start, epsilon: 0.001 time: 2020-06-29 15:01:01.931068 부족분 점수: 42.21918765205066 추가분 점수: 0 기타 점수: 30.0 [Episode 1072] - Mean score over last 1 times:72.21918765205066 epoch 1072 start, epsilon: 0.001 time: 2020-06-29 15:01:05.383278 부족분 점수: 42.46813982930696 추가분 점수: 0 기타 점수: 30.0 [Episode 1073] - Mean score over last 1 times:72.46813982930696 epoch 1073 start, epsilon: 0.001 time: 2020-06-29 15:01:08.842779 부족분 점수: 42.17250681472638 추가분 점수: 0 기타 점수: 30.0 [Episode 1074] - Mean score over last 1 times:72.17250681472638 epoch 1074 start, epsilon: 0.001 time: 2020-06-29 15:01:12.293907 부족분 점수: 42.21918765205066 추가분 점수: 0 기타 점수: 30.0 [Episode 1075] - Mean score over last 1 times:72.21918765205066 epoch 1075 start, epsilon: 0.001 time: 2020-06-29 15:01:15.757924 부족분 점수: 42.21918765205066 추가분 점수: 0 기타 점수: 30.0 [Episode 1076] - Mean score over last 1 times:72.21918765205066 epoch 1076 start, epsilon: 0.001 time: 2020-06-29 15:01:19.211908 부족분 점수: 42.21918765205066 추가분 점수: 0

2020. 6. 29. [Episode 1077] - Mean score over last 1 times:72.21918765205066 epoch 1077 start, epsilon: 0.001 time: 2020-06-29 15:01:22.687433 부족분 점수: 37.97605468124776 추가분 점수: 0 기타 점수: 30.0 [Episode 1078] - Mean score over last 1 times:67.97605468124776 epoch 1078 start, epsilon: 0.001 time: 2020-06-29 15:01:26.113602 부족분 점수: 42.629622654783304 추가분 점수: 0 기타 점수: 30.0 [Episode 1079] - Mean score over last 1 times:72.6296226547833 epoch 1079 start, epsilon: 0.001 time: 2020-06-29 15:01:29.540586 부족분 점수: 42.629622654783304 추가분 점수: 0 기타 점수: 30.0 [Episode 1080] - Mean score over last 1 times:72.6296226547833 epoch 1080 start, epsilon: 0.001 time: 2020-06-29 15:01:32.960260 부족분 점수: 42.629622654783304 추가분 점수: 0 기타 점수: 30.0 [Episode 1081] - Mean score over last 1 times:72.6296226547833 epoch 1081 start, epsilon: 0.001 time: 2020-06-29 15:01:36.381965 부족분 점수: 37.03419236928828 추가분 점수: 0 기타 점수: 30.0 [Episode 1082] - Mean score over last 1 times:67.03419236928828 epoch 1082 start, epsilon: 0.001 time: 2020-06-29 15:01:39.789663 부족분 점수: 42.629622654783304 추가분 점수: 0 기타 점수: 30.0 [Episode 1083] - Mean score over last 1 times:72.6296226547833 epoch 1083 start, epsilon: 0.001 time: 2020-06-29 15:01:43.241296 부족분 점수: 42.629622654783304 추가분 점수: 0 기타 점수: 30.0 [Episode 1084] - Mean score over last 1 times:72.6296226547833 epoch 1084 start, epsilon: 0.001 time: 2020-06-29 15:01:46.721115 부족분 점수: 42.64857916065428 추가분 점수: 0 기타 점수: 30.0 [Episode 1085] - Mean score over last 1 times:72.64857916065428 epoch 1085 start, epsilon: 0.001 time: 2020-06-29 15:01:50.145189 부족분 점수: 40.52616630666561 추가분 점수: 1.3351340042634852 기타 점수: 30.0 [Episode 1086] - Mean score over last 1 times:71.8613003109291 epoch 1086 start, epsilon: 0.001 time: 2020-06-29 15:01:53.555491 부족분 점수: 40.52616630666561 추가분 점수: 1.3351340042634852 기타 점수: 30.0

[Episode 1087] - Mean score over last 1 times:71.8613003109291

```
epoch 1087 start, epsilon: 0.001 time: 2020-06-29 15:01:57.029050
부족분 점수: 40.52616630666561
추가분 점수: 1.3351340042634852
기타 점수: 30.0
[Episode 1088] - Mean score over last 1 times:71.8613003109291
epoch 1088 start, epsilon: 0.001 time: 2020-06-29 15:02:00.516106
부족분 점수: 40.52571163315958
추가분 점수: 1.3351340042634852
기타 점수: 30.0
[Episode 1089] - Mean score over last 1 times:71.86084563742307
epoch 1089 start, epsilon: 0.001 time: 2020-06-29 15:02:03.952484
부족분 점수: 39.83083227063642
추가분 점수: 0.8914064556879198
기타 점수: 30.0
[Episode 1090] - Mean score over last 1 times:70.72223872632435
epoch 1090 start, epsilon: 0.001 time: 2020-06-29 15:02:07.444186
부족분 점수: 39.83083227063642
추가분 점수: 0.8831486017407242
기타 점수: 30.0
[Episode 1091] - Mean score over last 1 times:70.71398087237714
epoch 1091 start, epsilon: 0.001 time: 2020-06-29 15:02:10.952035
부족분 점수: 39.48161844106586
추가분 점수: 0.962448576580075
기타 점수: 30.0
[Episode 1092] - Mean score over last 1 times:70.44406701764593
epoch 1092 start, epsilon: 0.001 time: 2020-06-29 15:02:14.379271
부족분 점수: 39.48161844106586
추가분 점수: 0.8561876916809807
기타 점수: 30.0
[Episode 1093] - Mean score over last 1 times:70.33780613274683
epoch 1093 start, epsilon: 0.001 time: 2020-06-29 15:02:17.835081
부족분 점수: 39.48161844106586
추가분 점수: 0.870908668073902
기타 점수: 30.0
[Episode 1094] - Mean score over last 1 times:70.35252710913977
epoch 1094 start, epsilon: 0.001 time: 2020-06-29 15:02:21.251613
부족분 점수: 39.48161844106586
추가분 점수: 0.8547554701370141
기타 점수: 30.0
[Episode 1095] - Mean score over last 1 times:70.33637391120288
epoch 1095 start, epsilon: 0.001 time: 2020-06-29 15:02:24.712457
부족분 점수: 39.48161844106586
추가분 점수: 1.1688488434857125
기타 점수: 30.0
[Episode 1096] - Mean score over last 1 times:70.65046728455158
epoch 1096 start, epsilon: 0.001 time: 2020-06-29 15:02:28.153336
부족분 점수: 39.48161844106586
추가분 점수: 1.1688488434857125
기타 점수: 30.0
[Episode 1097] - Mean score over last 1 times:70.65046728455158
```

```
epoch 1097 start, epsilon: 0.001 time: 2020-06-29 15:02:31.635233
부족분 점수: 39.48161844106586
추가분 점수: 1.1553776048106923
기타 점수: 30.0
[Episode 1098] - Mean score over last 1 times:70.63699604587656
epoch 1098 start, epsilon: 0.001 time: 2020-06-29 15:02:35.073977
부족분 점수: 39.00145864176121
추가분 점수: 1.8182387361551156
기타 점수: 30.0
[Episode 1099] - Mean score over last 1 times:70.81969737791633
epoch 1099 start, epsilon: 0.001 time: 2020-06-29 15:02:38.506995
부족분 점수: 39.00145864176121
추가분 점수: 2.042580173838886
기타 점수: 30.0
[Episode 1100] - Mean score over last 1 times:71.04403881560009
epoch 1100 start, epsilon: 0.001 time: 2020-06-29 15:02:41.948882
부족분 점수: 39.00145864176121
추가분 점수: 1.9910650511830275
기타 점수: 30.0
[Episode 1101] - Mean score over last 1 times:70.99252369294425
epoch 1101 start, epsilon: 0.001 time: 2020-06-29 15:02:45.403535
부족분 점수: 39.00145864176121
추가분 점수: 1.9752700622380437
기타 점수: 30.0
[Episode 1102] - Mean score over last 1 times:70.97672870399926
epoch 1102 start, epsilon: 0.001 time: 2020-06-29 15:02:48.891541
부족분 점수: 39.01600819395389
추가분 점수: 1.9813503987455916
기타 점수: 30.0
[Episode 1103] - Mean score over last 1 times:70.99735859269947
epoch 1103 start, epsilon: 0.001 time: 2020-06-29 15:02:52.308346
부족분 점수: 39.00145864176121
추가분 점수: 2.0684228328432797
기타 점수: 30.0
[Episode 1104] - Mean score over last 1 times:71.0698814746045
epoch 1104 start, epsilon: 0.001 time: 2020-06-29 15:02:55.732109
부족분 점수: 39.01600819395389
추가분 점수: 2.2552131543189535
기타 점수: 30.0
[Episode 1105] - Mean score over last 1 times:71.27122134827283
epoch 1105 start, epsilon: 0.001 time: 2020-06-29 15:02:59.162721
부족분 점수: 39.00145864176121
추가분 점수: 2.219195025134535
기타 점수: 30.0
[Episode 1106] - Mean score over last 1 times:71.22065366689574
epoch 1106 start, epsilon: 0.001 time: 2020-06-29 15:03:02.588035
부족분 점수: 38.957809985183175
추가분 점수: 2.743730958626862
기타 점수: 30.0
[Episode 1107] - Mean score over last 1 times:71.70154094381004
```

```
epoch 1107 start, epsilon: 0.001 time: 2020-06-29 15:03:06.009228
부족분 점수: 39.00145864176121
추가분 점수: 2.9267044803465847
기타 점수: 30.0
[Episode 1108] - Mean score over last 1 times:71.9281631221078
epoch 1108 start, epsilon: 0.001 time: 2020-06-29 15:03:09.499427
부족분 점수: 35.990532345872595
추가분 점수: 4.789811504038452
기타 점수: 30.0
[Episode 1109] - Mean score over last 1 times:70.78034384991105
epoch 1109 start, epsilon: 0.001 time: 2020-06-29 15:03:12.950017
부족분 점수: 35.990532345872595
추가분 점수: 4.8027365200825916
기타 점수: 30.0
[Episode 1110] - Mean score over last 1 times:70.79326886595518
epoch 1110 start, epsilon: 0.001 time: 2020-06-29 15:03:16.404458
부족분 점수: 36.03021796986437
추가분 점수: 4.553148414341508
기타 점수: 30.0
[Episode 1111] - Mean score over last 1 times:70.58336638420587
epoch 1111 start, epsilon: 0.001 time: 2020-06-29 15:03:19.859641
부족분 점수: 35.98279367991538
추가분 점수: 4.484518520725893
기타 점수: 30.0
[Episode 1112] - Mean score over last 1 times:70.46731220064127
epoch 1112 start, epsilon: 0.001 time: 2020-06-29 15:03:23.356360
부족분 점수: 35.990532345872595
추가분 점수: 4.484518520725893
기타 점수: 30.0
[Episode 1113] - Mean score over last 1 times:70.47505086659848
epoch 1113 start, epsilon: 0.001 time: 2020-06-29 15:03:26.787344
부족분 점수: 35.990532345872595
추가분 점수: 4.4755479353368255
기타 점수: 30.0
[Episode 1114] - Mean score over last 1 times:70.46608028120943
epoch 1114 start, epsilon: 0.001 time: 2020-06-29 15:03:30.219392
부족분 점수: 35.990532345872595
추가분 점수: 4.4620920572532246
기타 점수: 30.0
[Episode 1115] - Mean score over last 1 times:70.45262440312581
epoch 1115 start, epsilon: 0.001 time: 2020-06-29 15:03:33.635980
부족분 점수: 35.990532345872595
추가분 점수: 4.453106111272738
기타 점수: 30.0
[Episode 1116] - Mean score over last 1 times:70.44363845714534
epoch 1116 start, epsilon: 0.001 time: 2020-06-29 15:03:37.084142
부족분 점수: 35.990532345872595
추가분 점수: 4.484518520725893
기타 점수: 30.0
[Episode 1117] - Mean score over last 1 times:70.47505086659848
epoch 1117 start, epsilon: 0.001 time: 2020-06-29 15:03:40.505034
```

부족분 점수: 35.990532345872595 추가분 점수: 4.484518520725893 기타 점수: 30.0 [Episode 1118] - Mean score over last 1 times:70.47505086659848 epoch 1118 start, epsilon: 0.001 time: 2020-06-29 15:03:43.977196 부족분 점수: 35.990532345872595 추가분 점수: 4.484518520725893 기타 점수: 30.0 [Episode 1119] - Mean score over last 1 times:70.47505086659848 epoch 1119 start, epsilon: 0.001 time: 2020-06-29 15:03:47.391140 부족분 점수: 35.990532345872595 추가분 점수: 4.484518520725893 기타 점수: 30.0 [Episode 1120] - Mean score over last 1 times:70.47505086659848 epoch 1120 start, epsilon: 0.001 time: 2020-06-29 15:03:51.082210 부족분 점수: 35.990532345872595 추가분 점수: 4.269147668431188

기타 점수: 30.0

[Episode 1121] - Mean score over last 1 times:70.25968001430378

epoch 1121 start. epsilon: 0.001 time: 2020-06-29 15:03:54.540890

부족분 점수: 35.969199556509004 추가분 점수: 4.297037587059993

기타 점수: 30.0

[Episode 1122] - Mean score over last 1 times:70.266237143569

epoch 1122 start, epsilon: 0.001 time: 2020-06-29 15:03:58.035360

부족분 점수: 35.990532345872595 추가분 점수: 4.269147668431188

기타 점수: 30.0

[Episode 1123] - Mean score over last 1 times:70.25968001430378

epoch 1123 start, epsilon: 0.001 time: 2020-06-29 15:04:01.524727

부족분 점수: 35.95747020890097 추가분 점수: 5.350729919943669

기타 점수: 30.0

[Episode 1124] - Mean score over last 1 times:71.30820012884465

epoch 1124 start, epsilon: 0.001 time: 2020-06-29 15:04:04.992962

부족분 점수: 35.990532345872595 추가분 점수: 4.300560077884343

기타 점수: 30.0

[Episode 1125] - Mean score over last 1 times:70.29109242375694

epoch 1125 start, epsilon: 0.001 time: 2020-06-29 15:04:08.528689

부족분 점수: 35.990532345872595 추가분 점수: 3.4076488986609554

기타 점수: 30.0

[Episode 1126] - Mean score over last 1 times:69.39818124453355

epoch 1126 start, epsilon: 0.001 time: 2020-06-29 15:04:11.996388

부족분 점수: 35.56300561306732 추가분 점수: 2.9948778571852075

기타 점수: 30.0

[Episode 1127] - Mean score over last 1 times:68.55788347025253

epoch 1127 start, epsilon: 0.001 time: 2020-06-29 15:04:15.427955

부족분 점수: 35.55362950806477

```
추가분 점수: 2.9948409917658014
기타 점수: 30.0
[Episode 1128] - Mean score over last 1 times:68.54847049983057
epoch 1128 start, epsilon: 0.001 time: 2020-06-29 15:04:18.876777
부족분 점수: 35.55590287559488
추가분 점수: 1.9215596038564908
기타 점수: 30.0
[Episode 1129] - Mean score over last 1 times:67.47746247945138
epoch 1129 start, epsilon: 0.001 time: 2020-06-29 15:04:22.343894
부족분 점수: 35.55590287559488
추가분 점수: 1.933945770353629
기타 점수: 30.0
[Episode 1130] - Mean score over last 1 times: 67.48984864594851
epoch 1130 start, epsilon: 0.001 time: 2020-06-29 15:04:25.775788
부족분 점수: 35.541353323402205
추가분 점수: 1.9241057754902102
기타 점수: 30.0
[Episode 1131] - Mean score over last 1 times:67.46545909889241
epoch 1131 start, epsilon: 0.001 time: 2020-06-29 15:04:29.555769
부족분 점수: 35.55590287559488
추가분 점수: 1.9215596038564908
기타 점수: 30.0
[Episode 1132] - Mean score over last 1 times:67.47746247945138
epoch 1132 start, epsilon: 0.001 time: 2020-06-29 15:04:33.000274
부족분 점수: 35.55590287559488
추가분 점수: 1.9215596038564908
기타 점수: 30.0
[Episode 1133] - Mean score over last 1 times:67.47746247945138
epoch 1133 start. epsilon: 0.001 time: 2020-06-29 15:04:36.437635
부족분 점수: 39.16882457375127
추가분 점수: 2.914035678967326
기타 점수: 30.0
[Episode 1134] - Mean score over last 1 times:72.0828602527186
epoch 1134 start, epsilon: 0.001 time: 2020-06-29 15:04:39.852280
부족분 점수: 36.000499833644795
추가분 점수: 3.645620710746853
기타 점수: 30.0
[Episode 1135] - Mean score over last 1 times:69.64612054439165
epoch 1135 start, epsilon: 0.001 time: 2020-06-29 15:04:43.324607
부족분 점수: 40.23515068586577
추가분 점수: 0
기타 점수: 30.0
[Episode 1136] - Mean score over last 1 times:70.23515068586576
epoch 1136 start, epsilon: 0.001 time: 2020-06-29 15:04:46.766949
부족분 점수: 40.17695247709505
추가분 점수: 0
기타 점수: 30.0
[Episode 1137] - Mean score over last 1 times:70.17695247709506
epoch 1137 start, epsilon: 0.001 time: 2020-06-29 15:04:50.182607
부족분 점수: 40.11976038706233
추가분 점수: 0
```

기타 점수: 30.0 [Episode 1138] - Mean score over last 1 times:70.11976038706233 epoch 1138 start, epsilon: 0.001 time: 2020-06-29 15:04:53.621918 부족분 점수: 40.186625041511995 추가분 점수: 0 기타 점수: 30.0 [Episode 1139] - Mean score over last 1 times:70.186625041512 epoch 1139 start, epsilon: 0.001 time: 2020-06-29 15:04:57.070644 부족분 점수: 40.17695247709505 추가분 점수: 0 기타 점수: 30.0 [Episode 1140] - Mean score over last 1 times:70.17695247709506 epoch 1140 start, epsilon: 0.001 time: 2020-06-29 15:05:00.501285 부족분 점수: 40.17695247709505 추가분 점수: 0 기타 점수: 30.0 [Episode 1141] - Mean score over last 1 times:70.17695247709506 epoch 1141 start, epsilon: 0.001 time: 2020-06-29 15:05:03.922545 부족분 점수: 40.17695247709505 추가분 점수: 0 기타 점수: 30.0 [Episode 1142] - Mean score over last 1 times:70.17695247709506 epoch 1142 start, epsilon: 0.001 time: 2020-06-29 15:05:07.384660 부족분 점수: 40.17695247709505 추가분 점수: 0 기타 점수: 30.0 [Episode 1143] - Mean score over last 1 times:70.17695247709506 epoch 1143 start, epsilon: 0.001 time: 2020-06-29 15:05:10.812803 부족분 점수: 40.17695247709505 추가분 점수: 0 기타 점수: 30.0 [Episode 1144] - Mean score over last 1 times:70.17695247709506 epoch 1144 start, epsilon: 0.001 time: 2020-06-29 15:05:14.250103 부족분 점수: 40.17695247709505 추가분 점수: 0 기타 점수: 30.0 [Episode 1145] - Mean score over last 1 times:70.17695247709506 epoch 1145 start, epsilon: 0.001 time: 2020-06-29 15:05:17.711013 부족분 점수: 40.17695247709505 추가분 점수: 0 기타 점수: 30.0 [Episode 1146] - Mean score over last 1 times:70.17695247709506 epoch 1146 start, epsilon: 0.001 time: 2020-06-29 15:05:21.213396 부족분 점수: 37.378109866937336 추가분 점수: 0 기타 점수: 30.0 [Episode 1147] - Mean score over last 1 times:67.37810986693734 epoch 1147 start, epsilon: 0.001 time: 2020-06-29 15:05:24.657451 부족분 점수: 37.378109866937336

추가분 점수: 0

Untitled - Jupyter Notebook 기타 점수: 30.0 [Episode 1148] - Mean score over last 1 times:67.37810986693734 epoch 1148 start, epsilon: 0.001 time: 2020-06-29 15:05:28.113421 부족분 점수: 37.378109866937336 추가분 점수: 0 기타 점수: 30.0 [Episode 1149] - Mean score over last 1 times:67.37810986693734 epoch 1149 start, epsilon: 0.001 time: 2020-06-29 15:05:31.555493 부족분 점수: 37.378109866937336 추가분 점수: 0 기타 점수: 30.0 [Episode 1150] - Mean score over last 1 times:67.37810986693734 epoch 1150 start, epsilon: 0.001 time: 2020-06-29 15:05:35.020107 부족분 점수: 37.42031155580364 추가분 점수: 0 기타 점수: 30.0 [Episode 1151] - Mean score over last 1 times:67.42031155580364 epoch 1151 start, epsilon: 0.001 time: 2020-06-29 15:05:38.449503 부족분 점수: 37.378109866937336 추가분 점수: 0 기타 점수: 30.0 [Episode 1152] - Mean score over last 1 times:67.37810986693734 epoch 1152 start. epsilon: 0.001 time: 2020-06-29 15:05:41.870200 부족분 점수: 37.378109866937336 추가분 점수: 0 기타 점수: 30.0 [Episode 1153] - Mean score over last 1 times:67.37810986693734 epoch 1153 start, epsilon: 0.001 time: 2020-06-29 15:05:45.311820 부족분 점수: 37.378109866937336 추가분 점수: 0 기타 점수: 30.0 [Episode 1154] - Mean score over last 1 times:67.37810986693734 epoch 1154 start, epsilon: 0.001 time: 2020-06-29 15:05:48.761601 부족분 점수: 37.378109866937336 추가분 점수: 0 기타 점수: 30.0 [Episode 1155] - Mean score over last 1 times:67.37810986693734 epoch 1155 start, epsilon: 0.001 time: 2020-06-29 15:05:52.231213 부족분 점수: 37.35274799444438 추가분 점수: 0 기타 점수: 30.0 [Episode 1156] - Mean score over last 1 times:67.35274799444437 epoch 1156 start, epsilon: 0.001 time: 2020-06-29 15:05:55.700910 부족분 점수: 37.378109866937336 추가분 점수: 0 기타 점수: 30.0 [Episode 1157] - Mean score over last 1 times:67.37810986693734 epoch 1157 start, epsilon: 0.001 time: 2020-06-29 15:05:59.133515 부족분 점수: 37.38654436768586 추가분 점수: 0

2020. 6. 29. [Episode 1158] - Mean score over last 1 times:67.38654436768586 epoch 1158 start, epsilon: 0.001 time: 2020-06-29 15:06:02.556858 부족분 점수: 37.378109866937336 추가분 점수: 0 기타 점수: 30.0 [Episode 1159] - Mean score over last 1 times:67.37810986693734 epoch 1159 start, epsilon: 0.001 time: 2020-06-29 15:06:05.999300 부족분 점수: 37.378109866937336 추가분 점수: 0 기타 점수: 30.0 [Episode 1160] - Mean score over last 1 times:67.37810986693734 epoch 1160 start, epsilon: 0.001 time: 2020-06-29 15:06:09.534991 부족분 점수: 37.94657617025434 추가분 점수: 0 기타 점수: 30.0 [Episode 1161] - Mean score over last 1 times:67.94657617025433 epoch 1161 start, epsilon: 0.001 time: 2020-06-29 15:06:12.948742 부족분 점수: 37.378109866937336 추가분 점수: 0 기타 점수: 30.0 [Episode 1162] - Mean score over last 1 times:67.37810986693734 epoch 1162 start, epsilon: 0.001 time: 2020-06-29 15:06:16.406031 부족분 점수: 37.378109866937336 추가분 점수: 0 기타 점수: 30.0 [Episode 1163] - Mean score over last 1 times:67.37810986693734 epoch 1163 start, epsilon: 0.001 time: 2020-06-29 15:06:19.841030 부족분 점수: 37.378109866937336 추가분 점수: 0 기타 점수: 30.0 [Episode 1164] - Mean score over last 1 times:67.37810986693734 epoch 1164 start, epsilon: 0.001 time: 2020-06-29 15:06:23.284738 부족분 점수: 37.378109866937336 추가분 점수: 0 기타 점수: 30.0 [Episode 1165] - Mean score over last 1 times:67.37810986693734 epoch 1165 start, epsilon: 0.001 time: 2020-06-29 15:06:26.729152 부족분 점수: 37.378109866937336 추가분 점수: 0 기타 점수: 30.0 [Episode 1166] - Mean score over last 1 times:67.37810986693734 epoch 1166 start, epsilon: 0.001 time: 2020-06-29 15:06:30.141609 부족분 점수: 37.378109866937336 추가분 점수: 0 기타 점수: 30.0 [Episode 1167] - Mean score over last 1 times:67.37810986693734 epoch 1167 start, epsilon: 0.001 time: 2020-06-29 15:06:33.571591 부족분 점수: 37.38654436768586 추가분 점수: 0 기타 점수: 30.0

[Episode 1168] - Mean score over last 1 times:67.38654436768586

```
epoch 1168 start, epsilon: 0.001 time: 2020-06-29 15:06:36.977811
부족분 점수: 37.378109866937336
추가분 점수: 0
기타 점수: 30.0
[Episode 1169] - Mean score over last 1 times:67.37810986693734
epoch 1169 start, epsilon: 0.001 time: 2020-06-29 15:06:40.440499
부족분 점수: 37.378109866937336
추가분 점수: 0
기타 점수: 30.0
[Episode 1170] - Mean score over last 1 times:67.37810986693734
epoch 1170 start, epsilon: 0.001 time: 2020-06-29 15:06:43.840596
부족분 점수: 37.378109866937336
추가분 점수: 0
기타 점수: 30.0
[Episode 1171] - Mean score over last 1 times:67.37810986693734
epoch 1171 start, epsilon: 0.001 time: 2020-06-29 15:06:47.301976
부족분 점수: 37.378109866937336
추가분 점수: 0
기타 점수: 30.0
[Episode 1172] - Mean score over last 1 times:67.37810986693734
epoch 1172 start, epsilon: 0.001 time: 2020-06-29 15:06:50.770732
부족분 점수: 37.378109866937336
추가분 점수: 0
기타 점수: 30.0
[Episode 1173] - Mean score over last 1 times:67.37810986693734
epoch 1173 start, epsilon: 0.001 time: 2020-06-29 15:06:54.227313
부족분 점수: 37.378109866937336
추가분 점수: 0
기타 점수: 30.0
[Episode 1174] - Mean score over last 1 times:67.37810986693734
epoch 1174 start, epsilon: 0.001 time: 2020-06-29 15:06:57.662341
부족분 점수: 37.378109866937336
추가분 점수: 0
기타 점수: 30.0
[Episode 1175] - Mean score over last 1 times:67.37810986693734
epoch 1175 start, epsilon: 0.001 time: 2020-06-29 15:07:01.103778
부족분 점수: 37.378109866937336
추가분 점수: 0
기타 점수: 30.0
[Episode 1176] - Mean score over last 1 times:67.37810986693734
epoch 1176 start, epsilon: 0.001 time: 2020-06-29 15:07:04.571530
부족분 점수: 37.378109866937336
추가분 점수: 0
기타 점수: 30.0
[Episode 1177] - Mean score over last 1 times:67.37810986693734
epoch 1177 start, epsilon: 0.001 time: 2020-06-29 15:07:07.996618
부족분 점수: 42.78447738506207
추가분 점수: 0
기타 점수: 30.0
[Episode 1178] - Mean score over last 1 times:72.78447738506208
```

```
epoch 1178 start, epsilon: 0.001 time: 2020-06-29 15:07:11.431851
부족분 점수: 37.378109866937336
추가분 점수: 0
기타 점수: 30.0
[Episode 1179] - Mean score over last 1 times:67.37810986693734
epoch 1179 start, epsilon: 0.001 time: 2020-06-29 15:07:14.806498
부족분 점수: 37.378109866937336
추가분 점수: 0
기타 점수: 30.0
[Episode 1180] - Mean score over last 1 times:67.37810986693734
epoch 1180 start, epsilon: 0.001 time: 2020-06-29 15:07:18.215765
부족분 점수: 39.87133815020999
추가분 점수: 0.8379202619410941
기타 점수: 30.0
[Episode 1181] - Mean score over last 1 times:70.70925841215109
epoch 1181 start, epsilon: 0.001 time: 2020-06-29 15:07:21.705342
부족분 점수: 37.378109866937336
추가분 점수: 0
기타 점수: 30.0
[Episode 1182] - Mean score over last 1 times:67.37810986693734
epoch 1182 start, epsilon: 0.001 time: 2020-06-29 15:07:25.144227
부족분 점수: 37.378109866937336
추가분 점수: 0
기타 점수: 30.0
[Episode 1183] - Mean score over last 1 times:67.37810986693734
epoch 1183 start, epsilon: 0.001 time: 2020-06-29 15:07:28.626196
부족분 점수: 39.6967926777904
추가분 점수: 0.8911017015541534
기타 점수: 30.0
[Episode 1184] - Mean score over last 1 times:70.58789437934456
epoch 1184 start, epsilon: 0.001 time: 2020-06-29 15:07:32.086786
부족분 점수: 39.6967926777904
추가분 점수: 0.8911017015541534
기타 점수: 30.0
[Episode 1185] - Mean score over last 1 times:70.58789437934456
epoch 1185 start, epsilon: 0.001 time: 2020-06-29 15:07:35.524950
부족분 점수: 39.8189938628293
추가분 점수: 0.6151062814680919
기타 점수: 30.0
[Episode 1186] - Mean score over last 1 times:70.43410014429739
epoch 1186 start, epsilon: 0.001 time: 2020-06-29 15:07:38.956467
부족분 점수: 39.64699978464451
추가분 점수: 0.9159981481270973
기타 점수: 30.0
[Episode 1187] - Mean score over last 1 times:70.5629979327716
epoch 1187 start, epsilon: 0.001 time: 2020-06-29 15:07:42.399255
부족분 점수: 39.746560993990016
추가분 점수: 0.9559541185278531
기타 점수: 30.0
[Episode 1188] - Mean score over last 1 times:70.70251511251787
epoch 1188 start, epsilon: 0.001 time: 2020-06-29 15:07:45.799702
```

```
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                                             Untitled - Jupyter Notebook
 부족분 점수: 39.6967926777904
 추가분 점수: 0.9987794474057954
 기타 점수: 30.0
 [Episode 1189] - Mean score over last 1 times:70.6955721251962
 epoch 1189 start, epsilon: 0.001 time: 2020-06-29 15:07:49.256293
 부족분 점수: 39.6967926777904
 추가분 점수: 1.1366266236529143
 기타 점수: 30.0
 [Episode 1190] - Mean score over last 1 times:70.83341930144331
 epoch 1190 start, epsilon: 0.001 time: 2020-06-29 15:07:52.682020
 부족분 점수: 39.6967926777904
 추가분 점수: 1.1245974373003698
 기타 점수: 30.0
  [Episode 1191] - Mean score over last 1 times:70.82139011509076
 epoch 1191 start, epsilon: 0.001 time: 2020-06-29 15:07:56.163111
 부족분 점수: 39.6967926777904
 추가분 점수: 1.1097148674857138
 기타 점수: 30.0
 [Episode 1192] - Mean score over last 1 times:70.8065075452761
 epoch 1192 start, epsilon: 0.001 time: 2020-06-29 15:07:59.587075
 부족분 점수: 39.6967926777904
 추가분 점수: 1.1366266236529143
 기타 점수: 30.0
 [Episode 1193] - Mean score over last 1 times:70.83341930144331
 epoch 1193 start, epsilon: 0.001 time: 2020-06-29 15:08:03.008773
  부족분 점수: 39.6967926777904
  추가분 점수: 1.1142001601802476
 기타 점수: 30.0
 [Episode 1194] - Mean score over last 1 times:70.81099283797064
 epoch 1194 start, epsilon: 0.001 time: 2020-06-29 15:08:06.466157
 부족분 점수: 39.6967926777904
 추가분 점수: 1.1237016076087758
 기타 점수: 30.0
 [Episode 1195] - Mean score over last 1 times:70.82049428539918
 epoch 1195 start, epsilon: 0.001 time: 2020-06-29 15:08:09.963289
 부족분 점수: 39.71812546715399
 추가분 점수: 1.1528873457297406
 기타 점수: 30.0
 [Episode 1196] - Mean score over last 1 times:70.87101281288372
 epoch 1196 start, epsilon: 0.001 time: 2020-06-29 15:08:13.410382
 부족분 점수: 39.00145864176121
 추가분 점수: 0.6846412211301534
 기타 점수: 30.0
  [Episode 1197] - Mean score over last 1 times:69.68609986289137
 epoch 1197 start, epsilon: 0.001 time: 2020-06-29 15:08:16.935902
 부족분 점수: 39.00145864176121
 추가분 점수: 0.6846412211301534
 기타 점수: 30.0
 [Episode 1198] - Mean score over last 1 times:69.68609986289137
 epoch 1198 start, epsilon: 0.001 time: 2020-06-29 15:08:20.405054
```

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                                             Untitled - Jupyter Notebook
  부족분 점수: 38.98722858987006
  추가분 점수: 0.718683363834347
  기타 점수: 30.0
  [Episode 1199] - Mean score over last 1 times:69.7059119537044
  epoch 1199 start, epsilon: 0.001 time: 2020-06-29 15:08:23.836632
  부족분 점수: 39.00145864176121
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1200] - Mean score over last 1 times:69.00145864176122
  epoch 1200 start, epsilon: 0.001 time: 2020-06-29 15:08:27.265459
  부족분 점수: 38.95879306303403
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1201] - Mean score over last 1 times:68.95879306303402
  epoch 1201 start, epsilon: 0.001 time: 2020-06-29 15:08:30.679902
  부족분 점수: 39.00145864176121
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1202] - Mean score over last 1 times:69.00145864176122
  epoch 1202 start, epsilon: 0.001 time: 2020-06-29 15:08:34.170445
  부족분 점수: 39.00145864176121
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1203] - Mean score over last 1 times:69.00145864176122
  epoch 1203 start, epsilon: 0.001 time: 2020-06-29 15:08:37.603033
  부족분 점수: 39.00145864176121
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1204] - Mean score over last 1 times:69.00145864176122
  epoch 1204 start, epsilon: 0.001 time: 2020-06-29 15:08:41.079188
  부족분 점수: 39.00145864176121
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1205] - Mean score over last 1 times:69.00145864176122
  epoch 1205 start, epsilon: 0.001 time: 2020-06-29 15:08:44.525691
  부족분 점수: 39.00145864176121
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1206] - Mean score over last 1 times:69.00145864176122
  epoch 1206 start, epsilon: 0.001 time: 2020-06-29 15:08:47.945501
  부족분 점수: 39.00145864176121
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1207] - Mean score over last 1 times:69.00145864176122
  epoch 1207 start, epsilon: 0.001 time: 2020-06-29 15:08:51.397027
  부족분 점수: 39.00145864176121
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1208] - Mean score over last 1 times:69.00145864176122
  epoch 1208 start, epsilon: 0.001 time: 2020-06-29 15:08:54.812401
  부족분 점수: 39.00145864176121
```

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 추가분 점수: 0
 기타 점수: 30.0
 추가분 점수: 0
```

[Episode 1209] - Mean score over last 1 times:69.00145864176122

epoch 1209 start, epsilon: 0.001 time: 2020-06-29 15:08:58.267175

부족분 점수: 38.97235953737585

기타 점수: 30.0

[Episode 1210] - Mean score over last 1 times:68.97235953737585

epoch 1210 start, epsilon: 0.001 time: 2020-06-29 15:09:01.740825

부족분 점수: 38.965895800506466

추가분 점수: 0 기타 점수: 30.0

[Episode 1211] - Mean score over last 1 times:68.96589580050647

epoch 1211 start, epsilon: 0.001 time: 2020-06-29 15:09:05.252188

부족분 점수: 39.00145864176121 추가분 점수: 0.5458988296150968

기타 점수: 30.0

[Episode 1212] - Mean score over last 1 times:69.5473574713763

epoch 1212 start, epsilon: 0.001 time: 2020-06-29 15:09:08.708874

부족분 점수: 34.81043954946771

추가분 점수: 0 기타 점수: 30.0

[Episode 1213] - Mean score over last 1 times:64.8104395494677

epoch 1213 start, epsilon: 0.001 time: 2020-06-29 15:09:12.174849

부족분 점수: 34.81043954946771

추가분 점수: 0 기타 점수: 30.0

[Episode 1214] - Mean score over last 1 times:64.8104395494677

epoch 1214 start, epsilon: 0.001 time: 2020-06-29 15:09:15.644732

부족분 점수: 34.10658806549633

추가분 점수: 0 기타 점수: 30.0

[Episode 1215] - Mean score over last 1 times:64.10658806549634

epoch 1215 start, epsilon: 0.001 time: 2020-06-29 15:09:19.015948

부족분 점수: 34.10658806549633

추가분 점수: 0 기타 점수: 30.0

[Episode 1216] - Mean score over last 1 times:64.10658806549634

epoch 1216 start, epsilon: 0.001 time: 2020-06-29 15:09:22.496502

부족분 점수: 34.33770659611445

추가분 점수: 0 기타 점수: 30.0

[Episode 1217] - Mean score over last 1 times:64.33770659611446

epoch 1217 start, epsilon: 0.001 time: 2020-06-29 15:09:25.948982

부족분 점수: 34.10658806549633

추가분 점수: 0 기타 점수: 30.0

[Episode 1218] - Mean score over last 1 times:64.10658806549634

epoch 1218 start, epsilon: 0.001 time: 2020-06-29 15:09:29.384910

부족분 점수: 34.10658806549633

추가분 점수: 0

기타 점수: 30.0 [Episode 1219] - Mean score over last 1 times:64.10658806549634 epoch 1219 start, epsilon: 0.001 time: 2020-06-29 15:09:32.865383 부족분 점수: 34.10658806549633 추가분 점수: 0 기타 점수: 30.0 [Episode 1220] - Mean score over last 1 times:64.10658806549634 epoch 1220 start, epsilon: 0.001 time: 2020-06-29 15:09:36.242951 부족분 점수: 34.10658806549633 추가분 점수: 0 기타 점수: 30.0 [Episode 1221] - Mean score over last 1 times:64.10658806549634 epoch 1221 start, epsilon: 0.001 time: 2020-06-29 15:09:39.686231 부족분 점수: 34.10658806549633 추가분 점수: 0 기타 점수: 30.0 [Episode 1222] - Mean score over last 1 times:64.10658806549634 epoch 1222 start. epsilon: 0.001 time: 2020-06-29 15:09:43.139952 부족분 점수: 34.10658806549633 추가분 점수: 0 기타 점수: 30.0 [Episode 1223] - Mean score over last 1 times:64.10658806549634 epoch 1223 start. epsilon: 0.001 time: 2020-06-29 15:09:46.571050 부족분 점수: 34.10658806549633 추가분 점수: 0 기타 점수: 30.0 [Episode 1224] - Mean score over last 1 times:64.10658806549634 epoch 1224 start, epsilon: 0.001 time: 2020-06-29 15:09:50.012147 부족분 점수: 34.10658806549633 추가분 점수: 0 기타 점수: 30.0 [Episode 1225] - Mean score over last 1 times:64.10658806549634 epoch 1225 start, epsilon: 0.001 time: 2020-06-29 15:09:53.467227 부족분 점수: 34.10658806549633 추가분 점수: 0 기타 점수: 30.0 [Episode 1226] - Mean score over last 1 times:64.10658806549634 epoch 1226 start, epsilon: 0.001 time: 2020-06-29 15:09:56.859518 부족분 점수: 34.10658806549633 추가분 점수: 0 기타 점수: 30.0 [Episode 1227] - Mean score over last 1 times:64.10658806549634 epoch 1227 start, epsilon: 0.001 time: 2020-06-29 15:10:00.284611 부족분 점수: 34.10658806549633 추가분 점수: 0 기타 점수: 30.0 [Episode 1228] - Mean score over last 1 times:64.10658806549634 epoch 1228 start, epsilon: 0.001 time: 2020-06-29 15:10:03.679289 부족분 점수: 34.10658806549633 추가분 점수: 0 기타 점수: 30.0

2020. 6. 29. Untitled - Jupyter Notebook [Episode 1229] - Mean score over last 1 times:64.10658806549634 epoch 1229 start, epsilon: 0.001 time: 2020-06-29 15:10:07.231095 부족분 점수: 34.16437768253529 추가분 점수: 0 기타 점수: 30.0 [Episode 1230] - Mean score over last 1 times:64.16437768253529 epoch 1230 start, epsilon: 0.001 time: 2020-06-29 15:10:10.733806 부족분 점수: 35.19103353124943 추가분 점수: 0 기타 점수: 30.0 [Episode 1231] - Mean score over last 1 times:65.19103353124943 epoch 1231 start, epsilon: 0.001 time: 2020-06-29 15:10:14.153246 부족분 점수: 35.19103353124943 추가분 점수: 0 기타 점수: 30.0 [Episode 1232] - Mean score over last 1 times:65.19103353124943 epoch 1232 start, epsilon: 0.001 time: 2020-06-29 15:10:17.591055 부족분 점수: 35.15770104786883 추가분 점수: 0 기타 점수: 30.0 [Episode 1233] - Mean score over last 1 times:65.15770104786883 epoch 1233 start, epsilon: 0.001 time: 2020-06-29 15:10:21.056415 부족분 점수: 35.19103353124943 추가분 점수: 0 기타 점수: 30.0 [Episode 1234] - Mean score over last 1 times:65.19103353124943 epoch 1234 start, epsilon: 0.001 time: 2020-06-29 15:10:24.496385 부족분 점수: 35.19103353124943 추가분 점수: 0 기타 점수: 30.0 [Episode 1235] - Mean score over last 1 times:65.19103353124943 epoch 1235 start, epsilon: 0.001 time: 2020-06-29 15:10:27.931116 부족분 점수: 35.19103353124943 추가분 점수: 0 기타 점수: 30.0 [Episode 1236] - Mean score over last 1 times:65.19103353124943 epoch 1236 start, epsilon: 0.001 time: 2020-06-29 15:10:31.335694 부족분 점수: 35.19103353124943 추가분 점수: 0 기타 점수: 30.0 [Episode 1237] - Mean score over last 1 times:65.19103353124943 epoch 1237 start, epsilon: 0.001 time: 2020-06-29 15:10:34.797752 부족분 점수: 35.19103353124943 추가분 점수: 0 기타 점수: 30.0 [Episode 1238] - Mean score over last 1 times:65.19103353124943 epoch 1238 start, epsilon: 0.001 time: 2020-06-29 15:10:38.237479 부족분 점수: 35.19103353124943 추가분 점수: 0

2020. 6. 29. [Episode 1239] - Mean score over last 1 times:65.19103353124943 epoch 1239 start, epsilon: 0.001 time: 2020-06-29 15:10:41.665603 부족분 점수: 35.19103353124943 추가분 점수: 0 기타 점수: 30.0 [Episode 1240] - Mean score over last 1 times:65.19103353124943 epoch 1240 start, epsilon: 0.001 time: 2020-06-29 15:10:45.151292 부족분 점수: 35.19103353124943 추가분 점수: 0 기타 점수: 30.0 [Episode 1241] - Mean score over last 1 times:65.19103353124943 epoch 1241 start, epsilon: 0.001 time: 2020-06-29 15:10:48.587707 부족분 점수: 35.58228929953553 추가분 점수: 0 기타 점수: 30.0 [Episode 1242] - Mean score over last 1 times:65.58228929953553 epoch 1242 start, epsilon: 0.001 time: 2020-06-29 15:10:52.049816 부족분 점수: 35.58228929953553 추가분 점수: 0 기타 점수: 30.0 [Episode 1243] - Mean score over last 1 times:65.58228929953553 epoch 1243 start, epsilon: 0.001 time: 2020-06-29 15:10:55.529563 부족분 점수: 35.58228929953553 추가분 점수: 0 기타 점수: 30.0 [Episode 1244] - Mean score over last 1 times:65.58228929953553 epoch 1244 start, epsilon: 0.001 time: 2020-06-29 15:10:59.019787 부족분 점수: 35.58228929953553 추가분 점수: 0 기타 점수: 30.0 [Episode 1245] - Mean score over last 1 times:65.58228929953553 epoch 1245 start, epsilon: 0.001 time: 2020-06-29 15:11:02.480576 부족분 점수: 35.59294340574418 추가분 점수: 0 기타 점수: 30.0 [Episode 1246] - Mean score over last 1 times:65.59294340574418 epoch 1246 start, epsilon: 0.001 time: 2020-06-29 15:11:05.902182 부족분 점수: 35.58228929953553 추가분 점수: 0 기타 점수: 30.0 [Episode 1247] - Mean score over last 1 times:65.58228929953553 epoch 1247 start, epsilon: 0.001 time: 2020-06-29 15:11:09.324422 부족분 점수: 35.58228929953553 추가분 점수: 0 기타 점수: 30.0 [Episode 1248] - Mean score over last 1 times:65.58228929953553 epoch 1248 start, epsilon: 0.001 time: 2020-06-29 15:11:12.714432 부족분 점수: 35.58228929953553 추가분 점수: 0 기타 점수: 30.0

[Episode 1249] - Mean score over last 1 times:65.58228929953553

```
epoch 1249 start, epsilon: 0.001 time: 2020-06-29 15:11:16.165788
부족분 점수: 35.58228929953553
추가분 점수: 0
기타 점수: 30.0
[Episode 1250] - Mean score over last 1 times:65.58228929953553
epoch 1250 start, epsilon: 0.001 time: 2020-06-29 15:11:20.016315
부족분 점수: 35.58228929953553
추가분 점수: 0
기타 점수: 30.0
[Episode 1251] - Mean score over last 1 times:65.58228929953553
epoch 1251 start, epsilon: 0.001 time: 2020-06-29 15:11:23.754686
부족분 점수: 35.58228929953553
추가분 점수: 0
기타 점수: 30.0
[Episode 1252] - Mean score over last 1 times:65.58228929953553
epoch 1252 start, epsilon: 0.001 time: 2020-06-29 15:11:27.549631
부족분 점수: 35.58228929953553
추가분 점수: 0
기타 점수: 30.0
[Episode 1253] - Mean score over last 1 times:65.58228929953553
epoch 1253 start, epsilon: 0.001 time: 2020-06-29 15:11:31.105466
부족분 점수: 35.58228929953553
추가분 점수: 0
기타 점수: 30.0
[Episode 1254] - Mean score over last 1 times:65.58228929953553
epoch 1254 start, epsilon: 0.001 time: 2020-06-29 15:11:34.616524
부족분 점수: 35.057703597727006
추가분 점수: 0
기타 점수: 30.0
[Episode 1255] - Mean score over last 1 times:65.057703597727
epoch 1255 start, epsilon: 0.001 time: 2020-06-29 15:11:38.087851
부족분 점수: 35.057703597727006
추가분 점수: 0
기타 점수: 30.0
[Episode 1256] - Mean score over last 1 times:65.057703597727
epoch 1256 start, epsilon: 0.001 time: 2020-06-29 15:11:41.482764
부족분 점수: 35.057703597727006
추가분 점수: 0
기타 점수: 30.0
[Episode 1257] - Mean score over last 1 times:65.057703597727
epoch 1257 start, epsilon: 0.001 time: 2020-06-29 15:11:44.953990
부족분 점수: 35.04656716894776
추가분 점수: 0
기타 점수: 30.0
[Episode 1258] - Mean score over last 1 times:65.04656716894776
epoch 1258 start, epsilon: 0.001 time: 2020-06-29 15:11:48.351879
부족분 점수: 35.454255697934585
추가분 점수: 0
기타 점수: 30.0
[Episode 1259] - Mean score over last 1 times:65.45425569793458
```

```
epoch 1259 start, epsilon: 0.001 time: 2020-06-29 15:11:51.814454
부족분 점수: 35.057703597727006
추가분 점수: 0
기타 점수: 30.0
[Episode 1260] - Mean score over last 1 times:65.057703597727
epoch 1260 start, epsilon: 0.001 time: 2020-06-29 15:11:55.256672
부족분 점수: 35.057703597727006
추가분 점수: 0
기타 점수: 30.0
[Episode 1261] - Mean score over last 1 times:65.057703597727
epoch 1261 start, epsilon: 0.001 time: 2020-06-29 15:11:58.702453
부족분 점수: 35.057703597727006
추가분 점수: 0
기타 점수: 30.0
[Episode 1262] - Mean score over last 1 times:65.057703597727
epoch 1262 start, epsilon: 0.001 time: 2020-06-29 15:12:02.155675
부족분 점수: 36.09665559987257
추가분 점수: 0.46437648440915247
기타 점수: 30.0
[Episode 1263] - Mean score over last 1 times:66.56103208428172
epoch 1263 start, epsilon: 0.001 time: 2020-06-29 15:12:05.681367
부족분 점수: 35.78292320042223
추가분 점수: 0.05916654045380776
기타 점수: 30.0
[Episode 1264] - Mean score over last 1 times:65.84208974087605
epoch 1264 start, epsilon: 0.001 time: 2020-06-29 15:12:09.172365
부족분 점수: 35.80515765650215
추가분 점수: 1.2835973767796394
기타 점수: 30.0
[Episode 1265] - Mean score over last 1 times:67.08875503328179
epoch 1265 start, epsilon: 0.001 time: 2020-06-29 15:12:12.628473
부족분 점수: 35.78292320042223
추가분 점수: 1.841725694859393
기타 점수: 30.0
[Episode 1266] - Mean score over last 1 times:67.62464889528162
epoch 1266 start, epsilon: 0.001 time: 2020-06-29 15:12:16.085861
부족분 점수: 35.78292320042223
추가분 점수: 1.63352823875766
기타 점수: 30.0
[Episode 1267] - Mean score over last 1 times:67.4164514391799
epoch 1267 start, epsilon: 0.001 time: 2020-06-29 15:12:19.516770
부족분 점수: 35.78292320042223
추가분 점수: 1.0337340092403169
기타 점수: 30.0
[Episode 1268] - Mean score over last 1 times:66.81665720966255
epoch 1268 start, epsilon: 0.001 time: 2020-06-29 15:12:23.030821
부족분 점수: 33.5533333558622
추가분 점수: 0
기타 점수: 30.0
[Episode 1269] - Mean score over last 1 times:63.5533333558622
epoch 1269 start, epsilon: 0.001 time: 2020-06-29 15:12:26.475269
```

2020. 6. 29. Untitled - Jupyter Notebook 부족분 점수: 33.54090356528543 추가분 점수: 0 기타 점수: 30.0 [Episode 1270] - Mean score over last 1 times:63.54090356528543 epoch 1270 start, epsilon: 0.001 time: 2020-06-29 15:12:29.900366 부족분 점수: 33.85463596473577 추가분 점수: 1.0028297281513243 기타 점수: 30.0 [Episode 1271] - Mean score over last 1 times:64.8574656928871 epoch 1271 start, epsilon: 0.001 time: 2020-06-29 15:12:33.356342 부족분 점수: 32.874969701233425 추가분 점수: 1.0941011335194828 기타 점수: 30.0 [Episode 1272] - Mean score over last 1 times:63.969070834752905 epoch 1272 start, epsilon: 0.001 time: 2020-06-29 15:12:36.784254 부족분 점수: 32.874969701233425 추가분 점수: 1.3526377053979877 기타 점수: 30.0 [Episode 1273] - Mean score over last 1 times: 64,22760740663142 epoch 1273 start, epsilon: 0.001 time: 2020-06-29 15:12:40.220731 부족분 점수: 37.28603387379062 추가분 점수: 3.9082475009085793 기타 점수: 30.0 [Episode 1274] - Mean score over last 1 times:71.1942813746992 epoch 1274 start, epsilon: 0.001 time: 2020-06-29 15:12:43.656938 부족분 점수: 37.34732877779153 추가분 점수: 3.991227259028418 기타 점수: 30.0 [Episode 1275] - Mean score over last 1 times:71.33855603681995 epoch 1275 start, epsilon: 0.001 time: 2020-06-29 15:12:47.047007 부족분 점수: 36.9690296683679 추가분 점수: 4.634343886162043 기타 점수: 30.0 [Episode 1276] - Mean score over last 1 times:71.60337355452995 epoch 1276 start, epsilon: 0.001 time: 2020-06-29 15:12:50.515633 부족분 점수: 37.18787662250087 추가분 점수: 4.414485897901836 기타 점수: 30.0 [Episode 1277] - Mean score over last 1 times:71.6023625204027 epoch 1277 start, epsilon: 0.001 time: 2020-06-29 15:12:53.999216 부족분 점수: 36.99574020078751 추가분 점수: 4.822043554649758 기타 점수: 30.0 [Episode 1278] - Mean score over last 1 times:71.81778375543726 epoch 1278 start, epsilon: 0.001 time: 2020-06-29 15:12:57.472816 부족분 점수: 37.033103303356626 추가분 점수: 5.027251839661231

기타 점수: 30.0

[Episode 1279] - Mean score over last 1 times:72.06035514301786

epoch 1279 start, epsilon: 0.001 time: 2020-06-29 15:13:00.972426

2020. 6. 29. Untitled - Jupyter Notebook 부족분 점수: 37.70511688949253 추가분 점수: 3.683495013798419 기타 점수: 30.0 [Episode 1280] - Mean score over last 1 times:71.38861190329095 epoch 1280 start, epsilon: 0.001 time: 2020-06-29 15:13:04.491006 부족분 점수: 37.65283250841837 추가분 점수: 4.357337124736911 기타 점수: 30.0 [Episode 1281] - Mean score over last 1 times:72.01016963315527 epoch 1281 start, epsilon: 0.001 time: 2020-06-29 15:13:07.944721 부족분 점수: 38.2460923423458 추가분 점수: 3.4284698731184426 기타 점수: 30.0 [Episode 1282] - Mean score over last 1 times:71.67456221546425 epoch 1282 start, epsilon: 0.001 time: 2020-06-29 15:13:11.477344 부족분 점수: 37.990040499735336 추가분 점수: 4.740198637024003 기타 점수: 30.0 [Episode 1283] - Mean score over last 1 times:72.73023913675934 epoch 1283 start. epsilon: 0.001 time: 2020-06-29 15:13:14.925496 부족분 점수: 37.990040499735336 추가분 점수: 4.632680026899467 기타 점수: 30.0 [Episode 1284] - Mean score over last 1 times:72.6227205266348 epoch 1284 start, epsilon: 0.001 time: 2020-06-29 15:13:18.331478 부족분 점수: 37.99978218681367 추가분 점수: 4.632806598172765 기타 점수: 30.0 [Episode 1285] - Mean score over last 1 times:72.63258878498644 epoch 1285 start, epsilon: 0.001 time: 2020-06-29 15:13:21.798617 부족분 점수: 39.98302040224473 추가분 점수: 3.1326574468300805 기타 점수: 30.0 [Episode 1286] - Mean score over last 1 times:73.11567784907481 epoch 1286 start, epsilon: 0.001 time: 2020-06-29 15:13:25.241987 부족분 점수: 32.51698190184398 추가분 점수: 0 기타 점수: 30.0 [Episode 1287] - Mean score over last 1 times:62.51698190184398 epoch 1287 start, epsilon: 0.001 time: 2020-06-29 15:13:28.731350 부족분 점수: 34.5226573331617 추가분 점수: 0 기타 점수: 30.0 [Episode 1288] - Mean score over last 1 times:64.5226573331617 epoch 1288 start, epsilon: 0.001 time: 2020-06-29 15:13:32.193980 부족분 점수: 34.5226573331617 추가분 점수: 0 기타 점수: 30.0 [Episode 1289] - Mean score over last 1 times:64.5226573331617 epoch 1289 start, epsilon: 0.001 time: 2020-06-29 15:13:35.727119 부족분 점수: 34.5226573331617

localhost:8888/notebooks/competitions-master/process optimization/DQN/process optimization/Untitled.ipynb

2020. 6. 29. Untitled - Jupyter Notebook 추가분 점수: 0 기타 점수: 30.0 [Episode 1290] - Mean score over last 1 times:64.5226573331617 epoch 1290 start, epsilon: 0.001 time: 2020-06-29 15:13:39.244966 부족분 점수: 34.5226573331617 추가분 점수: 0 기타 점수: 30.0 [Episode 1291] - Mean score over last 1 times:64.5226573331617 epoch 1291 start, epsilon: 0.001 time: 2020-06-29 15:13:42.707040 부족분 점수: 34.5226573331617 추가분 점수: 0 기타 점수: 30.0 [Episode 1292] - Mean score over last 1 times:64.5226573331617 epoch 1292 start, epsilon: 0.001 time: 2020-06-29 15:13:46.113282 부족분 점수: 34.51901994511354 추가분 점수: 0 기타 점수: 30.0 [Episode 1293] - Mean score over last 1 times:64.51901994511354 epoch 1293 start, epsilon: 0.001 time: 2020-06-29 15:13:49.571487 부족분 점수: 34.57983559866216 추가분 점수: 0 기타 점수: 30.0 [Episode 1294] - Mean score over last 1 times:64.57983559866216 epoch 1294 start, epsilon: 0.001 time: 2020-06-29 15:13:53.091653 부족분 점수: 34.5226573331617 추가분 점수: 0 기타 점수: 30.0 [Episode 1295] - Mean score over last 1 times:64.5226573331617 epoch 1295 start, epsilon: 0.001 time: 2020-06-29 15:13:56.527605 부족분 점수: 34.5226573331617 추가분 점수: 0 기타 점수: 30.0 [Episode 1296] - Mean score over last 1 times:64.5226573331617 epoch 1296 start, epsilon: 0.001 time: 2020-06-29 15:14:00.045721 부족분 점수: 34.5226573331617 추가분 점수: 0 기타 점수: 30.0 [Episode 1297] - Mean score over last 1 times:64.5226573331617 epoch 1297 start, epsilon: 0.001 time: 2020-06-29 15:14:03.640293 부족분 점수: 34.5226573331617 추가분 점수: 0 기타 점수: 30.0 [Episode 1298] - Mean score over last 1 times:64.5226573331617 epoch 1298 start, epsilon: 0.001 time: 2020-06-29 15:14:07.143288 부족분 점수: 34.5226573331617 추가분 점수: 0 기타 점수: 30.0 [Episode 1299] - Mean score over last 1 times:64.5226573331617

부족분 점수: 34.56873757136147

추가분 점수: 0

epoch 1299 start, epsilon: 0.001 time: 2020-06-29 15:14:10.676406

기타 점수: 30.0 [Episode 1300] - Mean score over last 1 times:64.56873757136147 epoch 1300 start, epsilon: 0.001 time: 2020-06-29 15:14:14.157707 부족분 점수: 34.56873757136147 추가분 점수: 0 기타 점수: 30.0 [Episode 1301] - Mean score over last 1 times:64.56873757136147 epoch 1301 start, epsilon: 0.001 time: 2020-06-29 15:14:17.618972 부족분 점수: 34.56873757136147 추가분 점수: 0 기타 점수: 30.0 [Episode 1302] - Mean score over last 1 times:64.56873757136147 epoch 1302 start, epsilon: 0.001 time: 2020-06-29 15:14:21.082158 부족분 점수: 34.56873757136147 추가분 점수: 0 기타 점수: 30.0 [Episode 1303] - Mean score over last 1 times:64.56873757136147 epoch 1303 start. epsilon: 0.001 time: 2020-06-29 15:14:24.556225 부족분 점수: 34.56873757136147 추가분 점수: 0 기타 점수: 30.0 [Episode 1304] - Mean score over last 1 times:64.56873757136147 epoch 1304 start, epsilon: 0.001 time: 2020-06-29 15:14:27.999885 부족분 점수: 34.56873757136147 추가분 점수: 0 기타 점수: 30.0 [Episode 1305] - Mean score over last 1 times:64.56873757136147 epoch 1305 start, epsilon: 0.001 time: 2020-06-29 15:14:31.445460 부족분 점수: 34.56873757136147 추가분 점수: 0 기타 점수: 30.0 [Episode 1306] - Mean score over last 1 times:64.56873757136147 epoch 1306 start, epsilon: 0.001 time: 2020-06-29 15:14:34.889642 부족분 점수: 34.56873757136147 추가분 점수: 0 기타 점수: 30.0 [Episode 1307] - Mean score over last 1 times:64.56873757136147 epoch 1307 start, epsilon: 0.001 time: 2020-06-29 15:14:38.356572 부족분 점수: 34.56873757136147 추가분 점수: 0 기타 점수: 30.0 [Episode 1308] - Mean score over last 1 times:64.56873757136147 epoch 1308 start, epsilon: 0.001 time: 2020-06-29 15:14:41.808133 부족분 점수: 35.291295183563676 추가분 점수: 0 기타 점수: 30.0 [Episode 1309] - Mean score over last 1 times:65.29129518356368 epoch 1309 start, epsilon: 0.001 time: 2020-06-29 15:14:45.317307 부족분 점수: 34.56873757136147 추가분 점수: 0 기타 점수: 30.0

2020. 6. 29. [Episode 1310] - Mean score over last 1 times:64.56873757136147 epoch 1310 start, epsilon: 0.001 time: 2020-06-29 15:14:48.761614 부족분 점수: 34.56873757136147 추가분 점수: 0 기타 점수: 30.0 [Episode 1311] - Mean score over last 1 times:64.56873757136147 epoch 1311 start, epsilon: 0.001 time: 2020-06-29 15:14:52.197057 부족분 점수: 34.56873757136147 추가분 점수: 0 기타 점수: 30.0 [Episode 1312] - Mean score over last 1 times:64.56873757136147 epoch 1312 start, epsilon: 0.001 time: 2020-06-29 15:14:55.646700 부족분 점수: 34.081341397439026 추가분 점수: 4.05980799875149 기타 점수: 30.0 [Episode 1313] - Mean score over last 1 times:68.14114939619051 epoch 1313 start, epsilon: 0.001 time: 2020-06-29 15:14:59.112818 부족분 점수: 34.081341397439026 추가분 점수: 4.077943941828826 기타 점수: 30.0 [Episode 1314] - Mean score over last 1 times:68.15928533926785 epoch 1314 start, epsilon: 0.001 time: 2020-06-29 15:15:02.555716 부족분 점수: 34.09487868665715 추가분 점수: 4.681494143160099 기타 점수: 30.0 [Episode 1315] - Mean score over last 1 times:68.77637282981725 epoch 1315 start, epsilon: 0.001 time: 2020-06-29 15:15:05.957272 부족분 점수: 34.081341397439026 추가분 점수: 4.696965330837955 기타 점수: 30.0 [Episode 1316] - Mean score over last 1 times:68.77830672827699 epoch 1316 start, epsilon: 0.001 time: 2020-06-29 15:15:09.379848 부족분 점수: 34.00008540488829 추가분 점수: 5.213788404166653 기타 점수: 30.0 [Episode 1317] - Mean score over last 1 times:69.21387380905495 epoch 1317 start, epsilon: 0.001 time: 2020-06-29 15:15:12.843156 부족분 점수: 34.04070802495666 추가분 점수: 5.59126817964396 기타 점수: 30.0 [Episode 1318] - Mean score over last 1 times:69.63197620460062 epoch 1318 start, epsilon: 0.001 time: 2020-06-29 15:15:16.269928 부족분 점수: 34.09551922331934 추가분 점수: 5.894626342861304 기타 점수: 30.0 [Episode 1319] - Mean score over last 1 times:69.99014556618064 epoch 1319 start, epsilon: 0.001 time: 2020-06-29 15:15:19.717219 부족분 점수: 34.0858466589024 추가분 점수: 6.185448420209254 기타 점수: 30.0

[Episode 1320] - Mean score over last 1 times:70.27129507911165

```
epoch 1320 start, epsilon: 0.001 time: 2020-06-29 15:15:23.155005
부족분 점수: 32.653680413064734
추가분 점수: 7.426218010416323
기타 점수: 30.0
[Episode 1321] - Mean score over last 1 times:70.07989842348105
epoch 1321 start, epsilon: 0.001 time: 2020-06-29 15:15:26.636977
부족분 점수: 33.062428822859516
추가분 점수: 7.713295175576169
기타 점수: 30.0
[Episode 1322] - Mean score over last 1 times:70.7757239984357
epoch 1322 start, epsilon: 0.001 time: 2020-06-29 15:15:30.069601
부족분 점수: 32.07533264128749
추가분 점수: 7.7029882187335925
기타 점수: 30.0
[Episode 1323] - Mean score over last 1 times:69.77832086002108
epoch 1323 start, epsilon: 0.001 time: 2020-06-29 15:15:33.529889
부족분 점수: 32.07533264128749
추가분 점수: 7.707294099720345
기타 점수: 30.0
[Episode 1324] - Mean score over last 1 times:69.78262674100783
epoch 1324 start, epsilon: 0.001 time: 2020-06-29 15:15:36.978231
부족분 점수: 31.52072773566757
추가분 점수: 7.889616946787532
기타 점수: 30.0
[Episode 1325] - Mean score over last 1 times:69.4103446824551
epoch 1325 start, epsilon: 0.001 time: 2020-06-29 15:15:40.393500
부족분 점수: 31.52072773566757
추가분 점수: 7.909352234643478
기타 점수: 30.0
[Episode 1326] - Mean score over last 1 times:69.43007997031106
epoch 1326 start, epsilon: 0.001 time: 2020-06-29 15:15:43.858413
부족분 점수: 31.52072773566757
추가분 점수: 8.528553035360389
기타 점수: 30.0
[Episode 1327] - Mean score over last 1 times:70.04928077102795
epoch 1327 start, epsilon: 0.001 time: 2020-06-29 15:15:47.332235
부족분 점수: 31.52072773566757
추가분 점수: 8.528553035360389
기타 점수: 30.0
[Episode 1328] - Mean score over last 1 times:70.04928077102795
epoch 1328 start, epsilon: 0.001 time: 2020-06-29 15:15:50.893287
부족분 점수: 31.52072773566757
추가분 점수: 9.116356787215565
기타 점수: 30.0
[Episode 1329] - Mean score over last 1 times:70.63708452288313
epoch 1329 start, epsilon: 0.001 time: 2020-06-29 15:15:54.332451
부족분 점수: 31.52072773566757
추가분 점수: 9.156739782057786
기타 점수: 30.0
[Episode 1330] - Mean score over last 1 times:70.67746751772535
```

```
epoch 1330 start, epsilon: 0.001 time: 2020-06-29 15:15:57.779208
부족분 점수: 29.867548692306766
추가분 점수: 5.010668545164593
기타 점수: 30.0
[Episode 1331] - Mean score over last 1 times:64.87821723747136
epoch 1331 start, epsilon: 0.001 time: 2020-06-29 15:16:01.227963
부족분 점수: 29.94023808302277
추가분 점수: 4.591918547084668
기타 점수: 30.0
[Episode 1332] - Mean score over last 1 times:64.53215663010744
epoch 1332 start, epsilon: 0.001 time: 2020-06-29 15:16:04.736511
부족분 점수: 34.933319672647364
추가분 점수: 4.399466926035373
기타 점수: 30.0
[Episode 1333] - Mean score over last 1 times:69.33278659868273
epoch 1333 start, epsilon: 0.001 time: 2020-06-29 15:16:08.256831
부족분 점수: 30.51252302936669
추가분 점수: 4.82763603877382
기타 점수: 30.0
[Episode 1334] - Mean score over last 1 times:65.34015906814051
epoch 1334 start, epsilon: 0.001 time: 2020-06-29 15:16:11.772327
부족분 점수: 30.51252302936669
추가분 점수: 4.82763603877382
기타 점수: 30.0
[Episode 1335] - Mean score over last 1 times:65.34015906814051
epoch 1335 start, epsilon: 0.001 time: 2020-06-29 15:16:15.263526
부족분 점수: 30.73102437019271
추가분 점수: 4.611226810499149
기타 점수: 30.0
[Episode 1336] - Mean score over last 1 times:65.34225118069186
epoch 1336 start, epsilon: 0.001 time: 2020-06-29 15:16:18.709737
부족분 점수: 31.47165371820012
추가분 점수: 3.738160900966274
기타 점수: 30.0
[Episode 1337] - Mean score over last 1 times:65.2098146191664
epoch 1337 start, epsilon: 0.001 time: 2020-06-29 15:16:22.149293
부족분 점수: 31.77856447900099
추가분 점수: 3.434270646862154
기타 점수: 30.0
[Episode 1338] - Mean score over last 1 times:65.21283512586314
epoch 1338 start, epsilon: 0.001 time: 2020-06-29 15:16:25.586876
부족분 점수: 31.771388010689744
추가분 점수: 2.120337945299706
기타 점수: 30.0
[Episode 1339] - Mean score over last 1 times:63.89172595598945
epoch 1339 start, epsilon: 0.001 time: 2020-06-29 15:16:28.987684
부족분 점수: 31.745596041637036
추가분 점수: 2.1228282043806557
기타 점수: 30.0
[Episode 1340] - Mean score over last 1 times:63.86842424601769
```

```
epoch 1340 start, epsilon: 0.001 time: 2020-06-29 15:16:32.424471
부족분 점수: 34.07381777976168
추가분 점수: 2.579462950714313
기타 점수: 30.0
[Episode 1341] - Mean score over last 1 times:66.653280730476
epoch 1341 start, epsilon: 0.001 time: 2020-06-29 15:16:35.868688
부족분 점수: 32.212624071337046
추가분 점수: 1.939899535587879
기타 점수: 30.0
[Episode 1342] - Mean score over last 1 times:64.15252360692492
epoch 1342 start, epsilon: 0.001 time: 2020-06-29 15:16:39.251646
부족분 점수: 31.878956696342307
추가분 점수: 2.6679313553602158
기타 점수: 30.0
[Episode 1343] - Mean score over last 1 times:64.54688805170252
epoch 1343 start, epsilon: 0.001 time: 2020-06-29 15:16:42.695218
부족분 점수: 32.43108854674366
추가분 점수: 2.7131068547253623
기타 점수: 30.0
[Episode 1344] - Mean score over last 1 times:65.14419540146902
epoch 1344 start, epsilon: 0.001 time: 2020-06-29 15:16:46.146879
부족분 점수: 32.4400652763693
추가분 점수: 2.2242406722040564
기타 점수: 30.0
[Episode 1345] - Mean score over last 1 times:64.66430594857336
epoch 1345 start, epsilon: 0.001 time: 2020-06-29 15:16:49.587085
부족분 점수: 32.58903229195692
추가분 점수: 1.6807976939451308
기타 점수: 30.0
[Episode 1346] - Mean score over last 1 times:64.26982998590205
epoch 1346 start, epsilon: 0.001 time: 2020-06-29 15:16:52.994842
부족분 점수: 32.5692908598644
추가분 점수: 1.7222547013394118
기타 점수: 30.0
[Episode 1347] - Mean score over last 1 times:64.2915455612038
epoch 1347 start, epsilon: 0.001 time: 2020-06-29 15:16:56.455604
부족분 점수: 32.5692908598644
추가분 점수: 1.7222547013394118
기타 점수: 30.0
[Episode 1348] - Mean score over last 1 times:64.2915455612038
epoch 1348 start, epsilon: 0.001 time: 2020-06-29 15:16:59.868978
부족분 점수: 32.664815305784835
추가분 점수: 1.8182645419486998
기타 점수: 30.0
[Episode 1349] - Mean score over last 1 times:64.48307984773353
epoch 1349 start, epsilon: 0.001 time: 2020-06-29 15:17:03.353732
부족분 점수: 31.750357824977122
추가분 점수: 1.8938472536645001
기타 점수: 30.0
[Episode 1350] - Mean score over last 1 times:63.64420507864162
epoch 1350 start, epsilon: 0.001 time: 2020-06-29 15:17:06.890855
```

2020. 6. 29. Untitled - Jupyter Notebook 부족분 점수: 32.36884589425216 추가분 점수: 1.5983297507313954 기타 점수: 30.0 [Episode 1351] - Mean score over last 1 times:63.967175644983556 epoch 1351 start, epsilon: 0.001 time: 2020-06-29 15:17:10.346602 부족분 점수: 32.205231018686774 추가분 점수: 1.9984602543160968 기타 점수: 30.0 [Episode 1352] - Mean score over last 1 times:64.20369127300287 epoch 1352 start, epsilon: 0.001 time: 2020-06-29 15:17:13.780166 부족분 점수: 32.119082677768894 추가분 점수: 2.1761411306562684 기타 점수: 30.0 [Episode 1353] - Mean score over last 1 times:64.29522380842516 epoch 1353 start, epsilon: 0.001 time: 2020-06-29 15:17:17.246455 부족분 점수: 32.194466316219895 추가분 점수: 2.013706562935569 기타 점수: 30.0 [Episode 1354] - Mean score over last 1 times: 64,20817287915546 epoch 1354 start. epsilon: 0.001 time: 2020-06-29 15:17:20.709811 부족분 점수: 39.36241564347207 추가분 점수: 2.237338955719408 기타 점수: 30.0 [Episode 1355] - Mean score over last 1 times:71.59975459919147 epoch 1355 start, epsilon: 0.001 time: 2020-06-29 15:17:24.125312 부족분 점수: 39.36241564347207 추가분 점수: 2.237338955719408 기타 점수: 30.0 [Episode 1356] - Mean score over last 1 times:71.59975459919147 epoch 1356 start, epsilon: 0.001 time: 2020-06-29 15:17:27.648732 부족분 점수: 27.02376559983263 추가분 점수: 0 기타 점수: 30.0 [Episode 1357] - Mean score over last 1 times:57.02376559983263 epoch 1357 start, epsilon: 0.001 time: 2020-06-29 15:17:31.094974 부족분 점수: 38.2997545684703 추가분 점수: 3.1410142229860183 기타 점수: 30.0 [Episode 1358] - Mean score over last 1 times:71.44076879145632 epoch 1358 start, epsilon: 0.001 time: 2020-06-29 15:17:34.524883 부족분 점수: 38.2997545684703 추가분 점수: 3.1394664897945757 기타 점수: 30.0 [Episode 1359] - Mean score over last 1 times:71.43922105826488 epoch 1359 start, epsilon: 0.001 time: 2020-06-29 15:17:37.977315 부족분 점수: 39.019458182786735 추가분 점수: 2.951184347680229 기타 점수: 30.0 [Episode 1360] - Mean score over last 1 times:71.97064253046696 epoch 1360 start, epsilon: 0.001 time: 2020-06-29 15:17:41.472934

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부족분 점수: 39.479686078665274

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2020. 6. 29.
                                             Untitled - Jupyter Notebook
  추가분 점수: 2.835538141423737
  기타 점수: 30.0
  [Episode 1361] - Mean score over last 1 times:72.31522422008902
  epoch 1361 start, epsilon: 0.001 time: 2020-06-29 15:17:44.863668
  부족분 점수: 40.011228592327754
  추가분 점수: 3.960174287414484
  기타 점수: 30.0
  [Episode 1362] - Mean score over last 1 times:73.97140287974224
  epoch 1362 start, epsilon: 0.001 time: 2020-06-29 15:17:48.401843
  부족분 점수: 40.046568705006905
  추가분 점수: 3.3398023952077405
  기타 점수: 30.0
  [Episode 1363] - Mean score over last 1 times:73.38637110021465
  epoch 1363 start, epsilon: 0.001 time: 2020-06-29 15:17:51.843448
  부족분 점수: 40.05993395560113
  추가분 점수: 3.410333315617451
  기타 점수: 30.0
  [Episode 1364] - Mean score over last 1 times:73.47026727121857
  epoch 1364 start, epsilon: 0.001 time: 2020-06-29 15:17:55.260522
  부족분 점수: 40.046568705006905
  추가분 점수: 3.3398023952077405
  기타 점수: 30.0
  [Episode 1365] - Mean score over last 1 times:73.38637110021465
  epoch 1365 start, epsilon: 0.001 time: 2020-06-29 15:17:58.734331
  부족분 점수: 40.03713883793439
  추가분 점수: 3.34572974022475
  기타 점수: 30.0
  [Episode 1366] - Mean score over last 1 times:73.38286857815913
  epoch 1366 start, epsilon: 0.001 time: 2020-06-29 15:18:02.155263
  부족분 점수: 40.10310489778602
  추가분 점수: 3.2816508826349433
  기타 점수: 30.0
  [Episode 1367] - Mean score over last 1 times:73.38475578042096
  epoch 1367 start, epsilon: 0.001 time: 2020-06-29 15:18:05.645668
  부족분 점수: 40.73623775492054
  추가분 점수: 2.9216367140254174
  기타 점수: 30.0
  [Episode 1368] - Mean score over last 1 times:73.65787446894595
  epoch 1368 start, epsilon: 0.001 time: 2020-06-29 15:18:09.177978
  부족분 점수: 40.816395465184755
  추가분 점수: 2.9062275831368978
  기타 점수: 30.0
  [Episode 1369] - Mean score over last 1 times:73.72262304832165
  epoch 1369 start, epsilon: 0.001 time: 2020-06-29 15:18:12.719801
  부족분 점수: 40.67920387897943
  추가분 점수: 1.3903129351847565
  기타 점수: 30.0
  [Episode 1370] - Mean score over last 1 times:72.06951681416419
  epoch 1370 start, epsilon: 0.001 time: 2020-06-29 15:18:16.174994
  부족분 점수: 40.67920387897943
```

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추가분 점수: 1.843813506445151
기타 점수: 30.0
[Episode 1371] - Mean score over last 1 times:72.52301738542458
epoch 1371 start, epsilon: 0.001 time: 2020-06-29 15:18:19.649607
부족분 점수: 40.67920387897943
추가분 점수: 0.24239934895669224
기타 점수: 30.0
[Episode 1372] - Mean score over last 1 times:70.92160322793612
epoch 1372 start, epsilon: 0.001 time: 2020-06-29 15:18:23.163488
부족분 점수: 40.757275620928866
추가분 점수: 0.17325764043497616
기타 점수: 30.0
[Episode 1373] - Mean score over last 1 times:70.93053326136385
epoch 1373 start, epsilon: 0.001 time: 2020-06-29 15:18:26.639199
부족분 점수: 41.35516206499189
추가분 점수: 0
기타 점수: 30.0
[Episode 1374] - Mean score over last 1 times:71.35516206499189
epoch 1374 start, epsilon: 0.001 time: 2020-06-29 15:18:30.096765
부족분 점수: 32.537264026754464
추가분 점수: 4.716164841265185
기타 점수: 30.0
[Episode 1375] - Mean score over last 1 times:67.25342886801965
epoch 1375 start, epsilon: 0.001 time: 2020-06-29 15:18:33.559637
부족분 점수: 32.57789125500026
추가분 점수: 5.097981218912082
기타 점수: 30.0
[Episode 1376] - Mean score over last 1 times:67.67587247391234
epoch 1376 start, epsilon: 0.001 time: 2020-06-29 15:18:36.996526
부족분 점수: 32.57789125500026
추가분 점수: 5.1293936283652375
기타 점수: 30.0
[Episode 1377] - Mean score over last 1 times:67.7072848833655
epoch 1377 start, epsilon: 0.001 time: 2020-06-29 15:18:40.437253
부족분 점수: 28.88398851887955
추가분 점수: 0
기타 점수: 30.0
[Episode 1378] - Mean score over last 1 times:58.88398851887955
epoch 1378 start, epsilon: 0.001 time: 2020-06-29 15:18:43.910901
부족분 점수: 28.905524068049882
추가분 점수: 0
기타 점수: 30.0
[Episode 1379] - Mean score over last 1 times:58.905524068049885
epoch 1379 start, epsilon: 0.001 time: 2020-06-29 15:18:47.366039
부족분 점수: 28.905524068049882
추가분 점수: 0
기타 점수: 30.0
[Episode 1380] - Mean score over last 1 times:58.905524068049885
epoch 1380 start, epsilon: 0.001 time: 2020-06-29 15:18:50.835558
부족분 점수: 28.905524068049882
추가분 점수: 0
```

2020. 6. 29. Untitled - Jupyter Notebook 기타 점수: 30.0 [Episode 1381] - Mean score over last 1 times:58.905524068049885 epoch 1381 start, epsilon: 0.001 time: 2020-06-29 15:18:54.282330 부족분 점수: 28.905524068049882 추가분 점수: 0 기타 점수: 30.0 [Episode 1382] - Mean score over last 1 times:58.905524068049885 epoch 1382 start, epsilon: 0.001 time: 2020-06-29 15:18:57.686102 부족분 점수: 28.932455792985923 추가분 점수: 0 기타 점수: 30.0 [Episode 1383] - Mean score over last 1 times:58.93245579298592 epoch 1383 start, epsilon: 0.001 time: 2020-06-29 15:19:01.125649 부족분 점수: 29.379753143007413 추가분 점수: 0.0009486701260774666 기타 점수: 30.0 [Episode 1384] - Mean score over last 1 times:59.38070181313349 epoch 1384 start. epsilon: 0.001 time: 2020-06-29 15:19:04.586819 부족분 점수: 29.449588535837645 추가분 점수: 0 기타 점수: 30.0 [Episode 1385] - Mean score over last 1 times:59.44958853583765 epoch 1385 start, epsilon: 0.001 time: 2020-06-29 15:19:08.032049 부족분 점수: 29.465741733774532 추가분 점수: 0 기타 점수: 30.0 [Episode 1386] - Mean score over last 1 times:59.465741733774536 epoch 1386 start, epsilon: 0.001 time: 2020-06-29 15:19:11.494393 부족분 점수: 29.445994157445448 추가분 점수: 0 기타 점수: 30.0 [Episode 1387] - Mean score over last 1 times:59.44599415744545 epoch 1387 start, epsilon: 0.001 time: 2020-06-29 15:19:14.952195 부족분 점수: 29.45138265291546 추가분 점수: 0.04886511342414357 기타 점수: 30.0 [Episode 1388] - Mean score over last 1 times:59.5002477663396 epoch 1388 start, epsilon: 0.001 time: 2020-06-29 15:19:18.324316 부족분 점수: 29.453176769993274 추가분 점수: 0.04355649302951736 기타 점수: 30.0 [Episode 1389] - Mean score over last 1 times:59.49673326302279 epoch 1389 start, epsilon: 0.001 time: 2020-06-29 15:19:21.799599 부족분 점수: 29.85798826020719 추가분 점수: 0 기타 점수: 30.0 [Episode 1390] - Mean score over last 1 times:59.85798826020719 epoch 1390 start, epsilon: 0.001 time: 2020-06-29 15:19:25.261504 부족분 점수: 29.76657738066894

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추가분 점수: 0 기타 점수: 30.0 [Episode 1391] - Mean score over last 1 times:59.76657738066894 epoch 1391 start, epsilon: 0.001 time: 2020-06-29 15:19:28.710996 부족분 점수: 29.62037834365514 추가분 점수: 0 기타 점수: 30.0 [Episode 1392] - Mean score over last 1 times:59.62037834365514 epoch 1392 start, epsilon: 0.001 time: 2020-06-29 15:19:32.287354 부족분 점수: 29.61634158023006 추가분 점수: 0 기타 점수: 30.0 [Episode 1393] - Mean score over last 1 times:59.616341580230056 epoch 1393 start, epsilon: 0.001 time: 2020-06-29 15:19:35.735650 부족분 점수: 29.61634158023006 추가분 점수: 0 기타 점수: 30.0 [Episode 1394] - Mean score over last 1 times:59.616341580230056 epoch 1394 start, epsilon: 0.001 time: 2020-06-29 15:19:39.199061 부족분 점수: 30.198881257405723 추가분 점수: 0 기타 점수: 30.0 [Episode 1395] - Mean score over last 1 times:60.19888125740572 epoch 1395 start, epsilon: 0.001 time: 2020-06-29 15:19:42.679255 부족분 점수: 30.118883297292264 추가분 점수: 0 기타 점수: 30.0 [Episode 1396] - Mean score over last 1 times:60.118883297292264 epoch 1396 start, epsilon: 0.001 time: 2020-06-29 15:19:46.129952 부족분 점수: 30.118883297292264 추가분 점수: 0 기타 점수: 30.0 [Episode 1397] - Mean score over last 1 times:60.118883297292264 epoch 1397 start, epsilon: 0.001 time: 2020-06-29 15:19:49.540391 부족분 점수: 30.212198890166555 추가분 점수: 0 기타 점수: 30.0 [Episode 1398] - Mean score over last 1 times:60.212198890166555 epoch 1398 start, epsilon: 0.001 time: 2020-06-29 15:19:52.992974 부족분 점수: 30.118883297292264 추가분 점수: 0 기타 점수: 30.0 [Episode 1399] - Mean score over last 1 times:60.118883297292264 epoch 1399 start, epsilon: 0.001 time: 2020-06-29 15:19:56.397981 부족분 점수: 30.118883297292264 추가분 점수: 0 기타 점수: 30.0 [Episode 1400] - Mean score over last 1 times:60.118883297292264 epoch 1400 start, epsilon: 0.001 time: 2020-06-29 15:19:59.854478 부족분 점수: 30.118883297292264 추가분 점수: 0 기타 점수: 30.0 [Episode 1401] - Mean score over last 1 times:60.118883297292264

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epoch 1401 start, epsilon: 0.001 time: 2020-06-29 15:20:03.298202
부족분 점수: 30.118883297292264
추가분 점수: 0
기타 점수: 30.0
[Episode 1402] - Mean score over last 1 times:60.118883297292264
epoch 1402 start, epsilon: 0.001 time: 2020-06-29 15:20:06.795794
부족분 점수: 29.733317092068006
추가분 점수: 0
기타 점수: 30.0
[Episode 1403] - Mean score over last 1 times:59.733317092068006
epoch 1403 start, epsilon: 0.001 time: 2020-06-29 15:20:10.261431
부족분 점수: 33.21121765558666
추가분 점수: 0
기타 점수: 30.0
[Episode 1404] - Mean score over last 1 times:63.21121765558666
epoch 1404 start, epsilon: 0.001 time: 2020-06-29 15:20:13.695554
부족분 점수: 33.21121765558666
추가분 점수: 0
기타 점수: 30.0
[Episode 1405] - Mean score over last 1 times:63.21121765558666
epoch 1405 start, epsilon: 0.001 time: 2020-06-29 15:20:17.149342
부족분 점수: 32.25048024889073
추가분 점수: 0
기타 점수: 30.0
[Episode 1406] - Mean score over last 1 times:62.25048024889073
epoch 1406 start, epsilon: 0.001 time: 2020-06-29 15:20:20.651479
부족분 점수: 32.25048024889073
추가분 점수: 0
기타 점수: 30.0
[Episode 1407] - Mean score over last 1 times:62.25048024889073
epoch 1407 start, epsilon: 0.001 time: 2020-06-29 15:20:24.110807
부족분 점수: 32.340685322002535
추가분 점수: 0
기타 점수: 30.0
[Episode 1408] - Mean score over last 1 times:62.340685322002535
epoch 1408 start, epsilon: 0.001 time: 2020-06-29 15:20:27.540111
부족분 점수: 32.263353960559535
추가분 점수: 0
기타 점수: 30.0
[Episode 1409] - Mean score over last 1 times:62.263353960559535
epoch 1409 start, epsilon: 0.001 time: 2020-06-29 15:20:30.989062
부족분 점수: 32.25048024889073
추가분 점수: 0
기타 점수: 30.0
[Episode 1410] - Mean score over last 1 times:62.25048024889073
epoch 1410 start, epsilon: 0.001 time: 2020-06-29 15:20:34.417759
부족분 점수: 32.25048024889073
추가분 점수: 0
기타 점수: 30.0
[Episode 1411] - Mean score over last 1 times:62.25048024889073
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epoch 1411 start, epsilon: 0.001 time: 2020-06-29 15:20:37.866031
부족분 점수: 32.25048024889073
추가분 점수: 0
기타 점수: 30.0
[Episode 1412] - Mean score over last 1 times:62.25048024889073
epoch 1412 start, epsilon: 0.001 time: 2020-06-29 15:20:41.279783
부족분 점수: 32.25048024889073
추가분 점수: 0
기타 점수: 30.0
[Episode 1413] - Mean score over last 1 times:62.25048024889073
epoch 1413 start, epsilon: 0.001 time: 2020-06-29 15:20:44.743376
부족분 점수: 32.25048024889073
추가분 점수: 0
기타 점수: 30.0
[Episode 1414] - Mean score over last 1 times:62.25048024889073
epoch 1414 start, epsilon: 0.001 time: 2020-06-29 15:20:48.164920
부족분 점수: 39.896173154417255
추가분 점수: 0
기타 점수: 30.0
[Episode 1415] - Mean score over last 1 times:69.89617315441726
epoch 1415 start, epsilon: 0.001 time: 2020-06-29 15:20:51.602085
부족분 점수: 34.58158363396571
추가분 점수: 5.318062857383361
기타 점수: 30.0
[Episode 1416] - Mean score over last 1 times:69.89964649134907
epoch 1416 start, epsilon: 0.001 time: 2020-06-29 15:20:55.040633
부족분 점수: 34.57448857678897
추가분 점수: 5.363861382336488
기타 점수: 30.0
[Episode 1417] - Mean score over last 1 times:69.93834995912546
epoch 1417 start, epsilon: 0.001 time: 2020-06-29 15:20:58.472727
부족분 점수: 34.119432592041434
추가분 점수: 6.210349782171454
기타 점수: 30.0
[Episode 1418] - Mean score over last 1 times:70.3297823742129
epoch 1418 start, epsilon: 0.001 time: 2020-06-29 15:21:01.972217
부족분 점수: 36.678817406499306
추가분 점수: 7.0654388843541005
기타 점수: 30.0
[Episode 1419] - Mean score over last 1 times:73.7442562908534
epoch 1419 start, epsilon: 0.001 time: 2020-06-29 15:21:05.420659
부족분 점수: 34.1332678767331
추가분 점수: 6.224817616017779
기타 점수: 30.0
[Episode 1420] - Mean score over last 1 times:70.35808549275089
epoch 1420 start, epsilon: 0.001 time: 2020-06-29 15:21:08.929175
부족분 점수: 34.12423584897835
추가분 점수: 6.167679288055021
기타 점수: 30.0
[Episode 1421] - Mean score over last 1 times:70.29191513703337
```

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epoch 1421 start, epsilon: 0.001 time: 2020-06-29 15:21:12.388037
부족분 점수: 34.12423584897835
추가분 점수: 6.161764845934805
기타 점수: 30.0
[Episode 1422] - Mean score over last 1 times:70.28600069491316
epoch 1422 start, epsilon: 0.001 time: 2020-06-29 15:21:15.870915
부족분 점수: 34.12423584897835
추가분 점수: 6.167679288055021
기타 점수: 30.0
[Episode 1423] - Mean score over last 1 times:70.29191513703337
epoch 1423 start, epsilon: 0.001 time: 2020-06-29 15:21:19.280082
부족분 점수: 34.12423584897835
추가분 점수: 6.167679288055021
기타 점수: 30.0
[Episode 1424] - Mean score over last 1 times:70.29191513703337
epoch 1424 start, epsilon: 0.001 time: 2020-06-29 15:21:22.699955
부족분 점수: 34.21687557583017
추가분 점수: 6.080662766510101
기타 점수: 30.0
[Episode 1425] - Mean score over last 1 times:70.29753834234027
epoch 1425 start, epsilon: 0.001 time: 2020-06-29 15:21:26.173309
부족분 점수: 34.22332702422642
추가분 점수: 6.072404912562906
기타 점수: 30.0
[Episode 1426] - Mean score over last 1 times:70.29573193678932
epoch 1426 start, epsilon: 0.001 time: 2020-06-29 15:21:29.675617
부족분 점수: 34.22332702422642
추가분 점수: 6.107586811150439
기타 점수: 30.0
[Episode 1427] - Mean score over last 1 times:70.33091383537686
epoch 1427 start, epsilon: 0.001 time: 2020-06-29 15:21:33.126094
부족분 점수: 34.22332702422642
추가분 점수: 6.107586811150439
기타 점수: 30.0
[Episode 1428] - Mean score over last 1 times:70.33091383537686
epoch 1428 start, epsilon: 0.001 time: 2020-06-29 15:21:36.571570
부족분 점수: 34.178183782103254
추가분 점수: 5.453206569540622
기타 점수: 30.0
[Episode 1429] - Mean score over last 1 times:69.63139035164387
epoch 1429 start, epsilon: 0.001 time: 2020-06-29 15:21:40.043238
부족분 점수: 34.178183782103254
추가분 점수: 5.4568034056274435
기타 점수: 30.0
[Episode 1430] - Mean score over last 1 times:69.6349871877307
epoch 1430 start, epsilon: 0.001 time: 2020-06-29 15:21:43.477241
부족분 점수: 34.178183782103254
추가분 점수: 5.462177154929691
기타 점수: 30.0
[Episode 1431] - Mean score over last 1 times:69.64036093703294
epoch 1431 start, epsilon: 0.001 time: 2020-06-29 15:21:46.949996
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2020. 6. 29. 부족분 점수: 34.58778931289924 추가분 점수: 4.111375347418176 기타 점수: 30.0 [Episode 1432] - Mean score over last 1 times:68.69916466031742 epoch 1432 start, epsilon: 0.001 time: 2020-06-29 15:21:50.483171 부족분 점수: 34.62112179627985 추가분 점수: 4.0926090056689794 기타 점수: 30.0 [Episode 1433] - Mean score over last 1 times:68.71373080194883 부족분 점수: 34.57665288412001 추가분 점수: 4.145303821745867 기타 점수: 30.0 부족분 점수: 34.58778931289924 추가분 점수: 4.078613049191064 기타 점수: 30.0 부족분 점수: 34.58778931289924 추가분 점수: 4.132805215719538 기타 점수: 30.0

epoch 1433 start, epsilon: 0.001 time: 2020-06-29 15:21:53.931817

[Episode 1434] - Mean score over last 1 times:68.72195670586588

epoch 1434 start, epsilon: 0.001 time: 2020-06-29 15:21:57.408014

[Episode 1435] - Mean score over last 1 times: 68.66640236209031

epoch 1435 start. epsilon: 0.001 time: 2020-06-29 15:22:00.864238

[Episode 1436] - Mean score over last 1 times:68.72059452861878

epoch 1436 start, epsilon: 0.001 time: 2020-06-29 15:22:04.378949

부족분 점수: 24.546220480399423 추가분 점수: 1.510742429609322

기타 점수: 30.0

[Episode 1437] - Mean score over last 1 times:56.05696291000875

epoch 1437 start, epsilon: 0.001 time: 2020-06-29 15:22:07.902135

부족분 점수: 34.58778931289924 추가분 점수: 4.131269771001231

기타 점수: 30.0

[Episode 1438] - Mean score over last 1 times:68.71905908390048

epoch 1438 start, epsilon: 0.001 time: 2020-06-29 15:22:11.463886

부족분 점수: 34.58778931289924 추가분 점수: 4.139691676064789

기타 점수: 30.0

[Episode 1439] - Mean score over last 1 times:68.72748098896403

epoch 1439 start, epsilon: 0.001 time: 2020-06-29 15:22:14.922038

부족분 점수: 34.58778931289924 추가분 점수: 3.117902062712379

기타 점수: 30.0

[Episode 1440] - Mean score over last 1 times:67.70569137561162

epoch 1440 start, epsilon: 0.001 time: 2020-06-29 15:22:18.341725

부족분 점수: 34.58778931289924 추가분 점수: 2.867704448703765

기타 점수: 30.0

[Episode 1441] - Mean score over last 1 times:67.45549376160301

epoch 1441 start, epsilon: 0.001 time: 2020-06-29 15:22:21.840239

부족분 점수: 31.68207231582113

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2020. 6. 29.
                                             Untitled - Jupyter Notebook
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1442] - Mean score over last 1 times:61.68207231582113
  epoch 1442 start, epsilon: 0.001 time: 2020-06-29 15:22:25.301752
  부족분 점수: 31.68207231582113
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1443] - Mean score over last 1 times:61.68207231582113
  epoch 1443 start, epsilon: 0.001 time: 2020-06-29 15:22:28.769643
  부족분 점수: 31.672648592985187
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1444] - Mean score over last 1 times:61.67264859298518
  epoch 1444 start, epsilon: 0.001 time: 2020-06-29 15:22:32.254368
  부족분 점수: 31.947945720585313
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1445] - Mean score over last 1 times:61.94794572058531
  epoch 1445 start, epsilon: 0.001 time: 2020-06-29 15:22:35.708726
  부족분 점수: 32.477588129089185
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1446] - Mean score over last 1 times:62.477588129089185
  epoch 1446 start, epsilon: 0.001 time: 2020-06-29 15:22:39.175294
  부족분 점수: 32.477588129089185
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1447] - Mean score over last 1 times:62.477588129089185
  epoch 1447 start. epsilon: 0.001 time: 2020-06-29 15:22:42.629200
  부족분 점수: 32.20962107571451
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1448] - Mean score over last 1 times:62.20962107571451
  epoch 1448 start, epsilon: 0.001 time: 2020-06-29 15:22:46.087970
  부족분 점수: 32.50989145284468
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1449] - Mean score over last 1 times:62.50989145284468
  epoch 1449 start, epsilon: 0.001 time: 2020-06-29 15:22:49.540411
  부족분 점수: 32.33435675833765
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1450] - Mean score over last 1 times:62.33435675833765
  epoch 1450 start, epsilon: 0.001 time: 2020-06-29 15:22:52.973773
  부족분 점수: 32.339482587694384
  추가분 점수: 0
  기타 점수: 30.0
  [Episode 1451] - Mean score over last 1 times:62.339482587694384
  epoch 1451 start, epsilon: 0.001 time: 2020-06-29 15:22:56.413043
  부족분 점수: 32.34890631053033
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추가분 점수: 0
기타 점수: 30.0
[Episode 1452] - Mean score over last 1 times:62.34890631053033
epoch 1452 start, epsilon: 0.001 time: 2020-06-29 15:22:59.839372
부족분 점수: 32.446144998453185
추가분 점수: 0
기타 점수: 30.0
[Episode 1453] - Mean score over last 1 times:62.446144998453185
epoch 1453 start, epsilon: 0.001 time: 2020-06-29 15:23:03.309521
부족분 점수: 32.173141207152014
추가분 점수: 0
기타 점수: 30.0
[Episode 1454] - Mean score over last 1 times:62.173141207152014
epoch 1454 start, epsilon: 0.001 time: 2020-06-29 15:23:06.790908
부족분 점수: 32.167752711682006
추가분 점수: 0
기타 점수: 30.0
[Episode 1455] - Mean score over last 1 times:62.167752711682006
epoch 1455 start, epsilon: 0.001 time: 2020-06-29 15:23:10.217772
부족분 점수: 32.173141207152014
추가분 점수: 0
기타 점수: 30.0
[Episode 1456] - Mean score over last 1 times:62.173141207152014
epoch 1456 start, epsilon: 0.001 time: 2020-06-29 15:23:13.665717
부족분 점수: 32.38521260440978
추가분 점수: 0
기타 점수: 30.0
[Episode 1457] - Mean score over last 1 times:62.38521260440978
epoch 1457 start, epsilon: 0.001 time: 2020-06-29 15:23:17.127522
부족분 점수: 32.38521260440978
추가분 점수: 0
기타 점수: 30.0
[Episode 1458] - Mean score over last 1 times:62.38521260440978
epoch 1458 start, epsilon: 0.001 time: 2020-06-29 15:23:20.571071
부족분 점수: 32.38521260440978
추가분 점수: 0
기타 점수: 30.0
[Episode 1459] - Mean score over last 1 times:62.38521260440978
epoch 1459 start, epsilon: 0.001 time: 2020-06-29 15:23:24.024159
부족분 점수: 32.38521260440978
추가분 점수: 0
기타 점수: 30.0
[Episode 1460] - Mean score over last 1 times:62.38521260440978
epoch 1460 start, epsilon: 0.001 time: 2020-06-29 15:23:27.513772
부족분 점수: 39.18504382223126
추가분 점수: 0
기타 점수: 30.0
[Episode 1461] - Mean score over last 1 times:69.18504382223125
epoch 1461 start, epsilon: 0.001 time: 2020-06-29 15:23:30.996141
부족분 점수: 32.38521260440978
추가분 점수: 0
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기타 점수: 30.0
[Episode 1462] - Mean score over last 1 times:62.38521260440978
epoch 1462 start, epsilon: 0.001 time: 2020-06-29 15:23:34.450228
부족분 점수: 32.38521260440978
추가분 점수: 0
기타 점수: 30.0
[Episode 1463] - Mean score over last 1 times:62.38521260440978
epoch 1463 start, epsilon: 0.001 time: 2020-06-29 15:23:37.899811
부족분 점수: 32.38521260440978
추가분 점수: 0
기타 점수: 30.0
[Episode 1464] - Mean score over last 1 times:62.38521260440978
epoch 1464 start, epsilon: 0.001 time: 2020-06-29 15:23:41.556089
부족분 점수: 32.38521260440978
추가분 점수: 0
기타 점수: 30.0
[Episode 1465] - Mean score over last 1 times:62.38521260440978
epoch 1465 start, epsilon: 0.001 time: 2020-06-29 15:23:45.015700
부족분 점수: 32.38521260440978
추가분 점수: 0
기타 점수: 30.0
[Episode 1466] - Mean score over last 1 times:62.38521260440978
epoch 1466 start, epsilon: 0.001 time: 2020-06-29 15:23:48.555663
부족분 점수: 32.38521260440978
추가분 점수: 0
기타 점수: 30.0
[Episode 1467] - Mean score over last 1 times:62.38521260440978
epoch 1467 start, epsilon: 0.001 time: 2020-06-29 15:23:52.008781
부족분 점수: 32.38117123280727
추가분 점수: 0
기타 점수: 30.0
[Episode 1468] - Mean score over last 1 times:62.38117123280727
epoch 1468 start, epsilon: 0.001 time: 2020-06-29 15:23:55.468366
부족분 점수: 31.797477975215994
추가분 점수: 0
기타 점수: 30.0
[Episode 1469] - Mean score over last 1 times:61.797477975216
epoch 1469 start, epsilon: 0.001 time: 2020-06-29 15:23:58.937242
부족분 점수: 31.801519346818495
추가분 점수: 0
기타 점수: 30.0
[Episode 1470] - Mean score over last 1 times:61.801519346818495
epoch 1470 start, epsilon: 0.001 time: 2020-06-29 15:24:02.462581
부족분 점수: 31.801519346818495
추가분 점수: 0
기타 점수: 30.0
[Episode 1471] - Mean score over last 1 times:61.801519346818495
epoch 1471 start, epsilon: 0.001 time: 2020-06-29 15:24:05.860155
부족분 점수: 31.798828171201777
추가분 점수: 0
기타 점수: 30.0
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[Episode 1472] - Mean score over last 1 times:61.79882817120178
epoch 1472 start, epsilon: 0.001 time: 2020-06-29 15:24:09.374425
부족분 점수: 31.801519346818495
추가분 점수: 0
기타 점수: 30.0
[Episode 1473] - Mean score over last 1 times:61.801519346818495
epoch 1473 start, epsilon: 0.001 time: 2020-06-29 15:24:12.844161
부족분 점수: 29.937447063561816
추가분 점수: 0
기타 점수: 30.0
[Episode 1474] - Mean score over last 1 times:59.93744706356182
epoch 1474 start, epsilon: 0.001 time: 2020-06-29 15:24:16.287442
부족분 점수: 31.78696979462582
추가분 점수: 0
기타 점수: 30.0
[Episode 1475] - Mean score over last 1 times:61.78696979462582
epoch 1475 start, epsilon: 0.001 time: 2020-06-29 15:24:19.747761
부족분 점수: 31.78696979462582
추가분 점수: 0
기타 점수: 30.0
[Episode 1476] - Mean score over last 1 times:61.78696979462582
epoch 1476 start, epsilon: 0.001 time: 2020-06-29 15:24:23.214509
부족분 점수: 32.03967456436595
추가분 점수: 0
기타 점수: 30.0
[Episode 1477] - Mean score over last 1 times:62.03967456436595
epoch 1477 start, epsilon: 0.001 time: 2020-06-29 15:24:26.645747
부족분 점수: 32.04146868144376
추가분 점수: 0
기타 점수: 30.0
[Episode 1478] - Mean score over last 1 times:62.04146868144376
epoch 1478 start, epsilon: 0.001 time: 2020-06-29 15:24:30.082239
부족분 점수: 25.075955052451814
추가분 점수: 0
기타 점수: 30.0
[Episode 1479] - Mean score over last 1 times:55.07595505245182
epoch 1479 start, epsilon: 0.001 time: 2020-06-29 15:24:33.527841
부족분 점수: 24.979035864830486
추가분 점수: 0
기타 점수: 30.0
[Episode 1480] - Mean score over last 1 times:54.979035864830486
epoch 1480 start, epsilon: 0.001 time: 2020-06-29 15:24:37.000570
부족분 점수: 24.990820510567623
추가분 점수: 0
기타 점수: 30.0
[Episode 1481] - Mean score over last 1 times:54.99082051056762
epoch 1481 start, epsilon: 0.001 time: 2020-06-29 15:24:40.469591
부족분 점수: 24.979035864830486
추가분 점수: 0
기타 점수: 30.0
[Episode 1482] - Mean score over last 1 times:54.979035864830486
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epoch 1482 start, epsilon: 0.001 time: 2020-06-29 15:24:43.912299
부족분 점수: 24.976307823794354
추가분 점수: 0
기타 점수: 30.0
[Episode 1483] - Mean score over last 1 times:54.97630782379436
epoch 1483 start, epsilon: 0.001 time: 2020-06-29 15:24:47.332269
부족분 점수: 25.19270476359589
추가분 점수: 0
기타 점수: 30.0
[Episode 1484] - Mean score over last 1 times:55.19270476359589
epoch 1484 start, epsilon: 0.001 time: 2020-06-29 15:24:50.769796
부족분 점수: 25.207063844454968
추가분 점수: 0
기타 점수: 30.0
[Episode 1485] - Mean score over last 1 times:55.207063844454964
epoch 1485 start, epsilon: 0.001 time: 2020-06-29 15:24:54.208370
부족분 점수: 25.184628164627444
추가분 점수: 0
기타 점수: 30.0
[Episode 1486] - Mean score over last 1 times:55.18462816462744
epoch 1486 start, epsilon: 0.001 time: 2020-06-29 15:24:57.691914
부족분 점수: 25.12097387378448
추가분 점수: 0
기타 점수: 30.0
[Episode 1487] - Mean score over last 1 times:55.12097387378448
epoch 1487 start, epsilon: 0.001 time: 2020-06-29 15:25:01.139940
부족분 점수: 25.11828269816776
추가분 점수: 0
기타 점수: 30.0
[Episode 1488] - Mean score over last 1 times:55.11828269816776
epoch 1488 start, epsilon: 0.001 time: 2020-06-29 15:25:04.555624
부족분 점수: 25.115588450432757
추가분 점수: 0
기타 점수: 30.0
[Episode 1489] - Mean score over last 1 times:55.11558845043275
epoch 1489 start, epsilon: 0.001 time: 2020-06-29 15:25:08.001637
부족분 점수: 25.054975556690874
추가분 점수: 0
기타 점수: 30.0
[Episode 1490] - Mean score over last 1 times:55.05497555669088
epoch 1490 start, epsilon: 0.001 time: 2020-06-29 15:25:11.512374
부족분 점수: 24.354756852590242
추가분 점수: 0
기타 점수: 30.0
[Episode 1491] - Mean score over last 1 times:54.35475685259024
epoch 1491 start, epsilon: 0.001 time: 2020-06-29 15:25:14.923463
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부족분 점수: 24.354756852590242

추가분 점수: 0 기타 점수: 30.0 2020. 6. 29. [Episode 1492] - Mean score over last 1 times:54.35475685259024 epoch 1492 start, epsilon: 0.001 time: 2020-06-29 15:25:18.319888 부족분 점수: 24.357448028206964 추가분 점수: 0 기타 점수: 30.0 [Episode 1493] - Mean score over last 1 times:54.35744802820696 epoch 1493 start, epsilon: 0.001 time: 2020-06-29 15:25:21.806924 부족분 점수: 25.45074119461777 추가분 점수: 0 기타 점수: 30.0 [Episode 1494] - Mean score over last 1 times:55.45074119461777 epoch 1494 start, epsilon: 0.001 time: 2020-06-29 15:25:25.286455 부족분 점수: 24.31706503336474 추가분 점수: 0 기타 점수: 30.0 [Episode 1495] - Mean score over last 1 times:54.31706503336474 epoch 1495 start, epsilon: 0.001 time: 2020-06-29 15:25:28.768917 부족분 점수: 24.549403194941572 추가분 점수: 0 기타 점수: 30.0 [Episode 1496] - Mean score over last 1 times:54.549403194941576 epoch 1496 start, epsilon: 0.001 time: 2020-06-29 15:25:32.238781 부족분 점수: 24.549403194941572 추가분 점수: 0 기타 점수: 30.0 [Episode 1497] - Mean score over last 1 times:54.549403194941576 epoch 1497 start, epsilon: 0.001 time: 2020-06-29 15:25:35.714409 부족분 점수: 24.549403194941572 추가분 점수: 0 기타 점수: 30.0 [Episode 1498] - Mean score over last 1 times:54.549403194941576 epoch 1498 start, epsilon: 0.001 time: 2020-06-29 15:25:39.146120 부족분 점수: 24.549403194941572 추가분 점수: 0 기타 점수: 30.0 [Episode 1499] - Mean score over last 1 times:54.549403194941576 epoch 1499 start, epsilon: 0.001 time: 2020-06-29 15:25:42.618145 부족분 점수: 34.581434636228934 추가분 점수: 2.0513830215696505 기타 점수: 30.0 [Episode 1500] - Mean score over last 1 times:66.63281765779858 epoch 1500 start, epsilon: 0.001 time: 2020-06-29 15:25:46.027523 부족분 점수: 34.581434636228934 추가분 점수: 2.07831013832827 기타 점수: 30.0 [Episode 1501] - Mean score over last 1 times:66.6597447745572 epoch 1501 start, epsilon: 0.001 time: 2020-06-29 15:25:49.467679 부족분 점수: 34.58778931289924 추가분 점수: 0 기타 점수: 30.0

[Episode 1502] - Mean score over last 1 times:64.58778931289925

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epoch 1502 start, epsilon: 0.001 time: 2020-06-29 15:25:52.902355
부족분 점수: 34.58778931289924
추가분 점수: 0
기타 점수: 30.0
[Episode 1503] - Mean score over last 1 times:64.58778931289925
epoch 1503 start, epsilon: 0.001 time: 2020-06-29 15:25:56.337240
부족분 점수: 34.58778931289924
추가분 점수: 0
기타 점수: 30.0
[Episode 1504] - Mean score over last 1 times:64.58778931289925
epoch 1504 start, epsilon: 0.001 time: 2020-06-29 15:25:59.807063
부족분 점수: 34.58778931289924
추가분 점수: 0
기타 점수: 30.0
[Episode 1505] - Mean score over last 1 times:64.58778931289925
epoch 1505 start, epsilon: 0.001 time: 2020-06-29 15:26:03.244843
부족분 점수: 41.630299442441256
추가분 점수: 0
기타 점수: 30.0
[Episode 1506] - Mean score over last 1 times:71.63029944244126
epoch 1506 start, epsilon: 0.001 time: 2020-06-29 15:26:06.754963
부족분 점수: 34.58778931289924
추가분 점수: 0
기타 점수: 30.0
[Episode 1507] - Mean score over last 1 times:64.58778931289925
epoch 1507 start, epsilon: 0.001 time: 2020-06-29 15:26:10.245920
부족분 점수: 34.58778931289924
추가분 점수: 0
기타 점수: 30.0
[Episode 1508] - Mean score over last 1 times:64.58778931289925
epoch 1508 start, epsilon: 0.001 time: 2020-06-29 15:26:13.697179
부족분 점수: 34.58778931289924
추가분 점수: 0
기타 점수: 30.0
[Episode 1509] - Mean score over last 1 times:64.58778931289925
epoch 1509 start, epsilon: 0.001 time: 2020-06-29 15:26:17.132846
부족분 점수: 34.58778931289924
추가분 점수: 0
기타 점수: 30.0
[Episode 1510] - Mean score over last 1 times:64.58778931289925
epoch 1510 start, epsilon: 0.001 time: 2020-06-29 15:26:20.600267
부족분 점수: 34.58778931289924
추가분 점수: 0
기타 점수: 30.0
[Episode 1511] - Mean score over last 1 times:64.58778931289925
epoch 1511 start, epsilon: 0.001 time: 2020-06-29 15:26:24.045223
부족분 점수: 34.58778931289924
추가분 점수: 0
기타 점수: 30.0
[Episode 1512] - Mean score over last 1 times:64.58778931289925
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epoch 1512 start, epsilon: 0.001 time: 2020-06-29 15:26:27.475713
부족분 점수: 34.58778931289924
추가분 점수: 0
기타 점수: 30.0
[Episode 1513] - Mean score over last 1 times:64.58778931289925
epoch 1513 start, epsilon: 0.001 time: 2020-06-29 15:26:30.900534
부족분 점수: 34.58778931289924
추가분 점수: 0
기타 점수: 30.0
[Episode 1514] - Mean score over last 1 times: 64.58778931289925
epoch 1514 start, epsilon: 0.001 time: 2020-06-29 15:26:34.339412
부족분 점수: 34.54620051163057
추가분 점수: 0.9965208260434522
기타 점수: 30.0
[Episode 1515] - Mean score over last 1 times:65.54272133767402
epoch 1515 start, epsilon: 0.001 time: 2020-06-29 15:26:37.835658
부족분 점수: 36.340664738810034
추가분 점수: 0
기타 점수: 30.0
[Episode 1516] - Mean score over last 1 times:66.34066473881003
epoch 1516 start, epsilon: 0.001 time: 2020-06-29 15:26:41.259072
부족분 점수: 34.58778931289924
추가분 점수: 0.45850750963953857
기타 점수: 30.0
[Episode 1517] - Mean score over last 1 times:65.04629682253878
epoch 1517 start, epsilon: 0.001 time: 2020-06-29 15:26:44.697637
부족분 점수: 34.58778931289924
추가분 점수: 0.4405509782699868
기타 점수: 30.0
[Episode 1518] - Mean score over last 1 times:65.02834029116923
epoch 1518 start, epsilon: 0.001 time: 2020-06-29 15:26:48.137618
부족분 점수: 34.58778931289924
추가분 점수: 0.45701630342452004
기타 점수: 30.0
[Episode 1519] - Mean score over last 1 times:65.04480561632376
epoch 1519 start, epsilon: 0.001 time: 2020-06-29 15:26:51.555977
부족분 점수: 34.542558515404984
추가분 점수: 0.43312566837773403
기타 점수: 30.0
[Episode 1520] - Mean score over last 1 times:64.97568418378272
epoch 1520 start, epsilon: 0.001 time: 2020-06-29 15:26:55.020835
부족분 점수: 34.58960800692332
추가분 점수: 1.1749857069696845
기타 점수: 30.0
[Episode 1521] - Mean score over last 1 times:65.764593713893
epoch 1521 start, epsilon: 0.001 time: 2020-06-29 15:26:58.471198
부족분 점수: 34.58960800692332
추가분 점수: 1.1507528379460674
기타 점수: 30.0
[Episode 1522] - Mean score over last 1 times:65.74036084486939
epoch 1522 start, epsilon: 0.001 time: 2020-06-29 15:27:01.861110
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2020. 6. 29. 부족분 점수: 34.486587592390116 추가분 점수: 1.153709444582518 기타 점수: 30.0 [Episode 1523] - Mean score over last 1 times:65.64029703697264 epoch 1523 start, epsilon: 0.001 time: 2020-06-29 15:27:05.310771 부족분 점수: 34.58960800692332 추가분 점수: 1.5493571131673134 기타 점수: 30.0 부족분 점수: 34.58960800692332 추가분 점수: 0.7910661571456079 기타 점수: 30.0 부족분 점수: 34.58960800692332 추가분 점수: 0.8998916463881268 기타 점수: 30.0

[Episode 1524] - Mean score over last 1 times:66.13896512009063

epoch 1524 start, epsilon: 0.001 time: 2020-06-29 15:27:08.767990

[Episode 1525] - Mean score over last 1 times:65.38067416406892

epoch 1525 start, epsilon: 0.001 time: 2020-06-29 15:27:12.197701

[Episode 1526] - Mean score over last 1 times:65.48949965331144

epoch 1526 start, epsilon: 0.001 time: 2020-06-29 15:27:15.631972

부족분 점수: 34.61184246300325 추가분 점수: 0.973878085443598

기타 점수: 30.0

[Episode 1527] - Mean score over last 1 times:65.58572054844684

epoch 1527 start, epsilon: 0.001 time: 2020-06-29 15:27:19.136696

부족분 점수: 34.241329637370235 추가분 점수: 3.4024379716277586

기타 점수: 30.0

[Episode 1528] - Mean score over last 1 times:67.64376760899799

epoch 1528 start, epsilon: 0.001 time: 2020-06-29 15:27:22.555588

부족분 점수: 34.26594959329762 추가분 점수: 3.3214692221365794

기타 점수: 30.0

[Episode 1529] - Mean score over last 1 times:67.5874188154342

epoch 1529 start, epsilon: 0.001 time: 2020-06-29 15:27:26.035748

부족분 점수: 34.241329637370235 추가분 점수: 3.4024379716277586

기타 점수: 30.0

[Episode 1530] - Mean score over last 1 times:67.64376760899799

epoch 1530 start, epsilon: 0.001 time: 2020-06-29 15:27:29.471472

부족분 점수: 34.18716204778803 추가분 점수: 3.4688559400789476

기타 점수: 30.0

[Episode 1531] - Mean score over last 1 times:67.65601798786697

epoch 1531 start, epsilon: 0.001 time: 2020-06-29 15:27:32.933844

부족분 점수: 34.06521738462583 추가분 점수: 4.435204878032295

기타 점수: 30.0

[Episode 1532] - Mean score over last 1 times:68.50042226265813

epoch 1532 start, epsilon: 0.001 time: 2020-06-29 15:27:36.404185

부족분 점수: 34.08914304182106

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추가분 점수: 4.372892488455749
기타 점수: 30.0
[Episode 1533] - Mean score over last 1 times:68.46203553027681
epoch 1533 start, epsilon: 0.001 time: 2020-06-29 15:27:39.855643
부족분 점수: 34.068443108823956
추가분 점수: 4.440596445620589
기타 점수: 30.0
[Episode 1534] - Mean score over last 1 times:68.50903955444454
epoch 1534 start, epsilon: 0.001 time: 2020-06-29 15:27:43.443865
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1535] - Mean score over last 1 times:54.54576580689341
epoch 1535 start, epsilon: 0.001 time: 2020-06-29 15:27:46.896946
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1536] - Mean score over last 1 times:54.54576580689341
epoch 1536 start, epsilon: 0.001 time: 2020-06-29 15:27:50.321100
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1537] - Mean score over last 1 times:54.54576580689341
epoch 1537 start, epsilon: 0.001 time: 2020-06-29 15:27:53.779928
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1538] - Mean score over last 1 times:54.54576580689341
epoch 1538 start, epsilon: 0.001 time: 2020-06-29 15:27:57.247755
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1539] - Mean score over last 1 times:54.54576580689341
epoch 1539 start, epsilon: 0.001 time: 2020-06-29 15:28:00.720297
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1540] - Mean score over last 1 times:54.54576580689341
epoch 1540 start, epsilon: 0.001 time: 2020-06-29 15:28:04.207610
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1541] - Mean score over last 1 times:54.54576580689341
epoch 1541 start, epsilon: 0.001 time: 2020-06-29 15:28:07.669404
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1542] - Mean score over last 1 times:54.54576580689341
epoch 1542 start, epsilon: 0.001 time: 2020-06-29 15:28:11.101401
부족분 점수: 24.545765806893407
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추가분 점수: 0
기타 점수: 30.0
[Episode 1543] -
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[Episode 1543] - Mean score over last 1 times:54.54576580689341

epoch 1543 start, epsilon: 0.001 time: 2020-06-29 15:28:14.540542

부족분 점수: 24.545765806893407

추가분 점수: 0 기타 점수: 30.0

[Episode 1544] - Mean score over last 1 times:54.54576580689341

epoch 1544 start, epsilon: 0.001 time: 2020-06-29 15:28:18.001936

부족분 점수: 24.545765806893407

추가분 점수: 0 기타 점수: 30.0

[Episode 1545] - Mean score over last 1 times:54.54576580689341

epoch 1545 start, epsilon: 0.001 time: 2020-06-29 15:28:21.468257

부족분 점수: 24.545765806893407

추가분 점수: 0 기타 점수: 30.0

[Episode 1546] - Mean score over last 1 times:54.54576580689341

epoch 1546 start, epsilon: 0.001 time: 2020-06-29 15:28:24.915226

부족분 점수: 29.62092518070968

추가분 점수: 0 기타 점수: 30.0

[Episode 1547] - Mean score over last 1 times:59.620925180709676

epoch 1547 start, epsilon: 0.001 time: 2020-06-29 15:28:28.385107

부족분 점수: 24.545765806893407

추가분 점수: 0 기타 점수: 30.0

[Episode 1548] - Mean score over last 1 times:54.54576580689341

epoch 1548 start, epsilon: 0.001 time: 2020-06-29 15:28:31.815194

부족분 점수: 24.53073086001186

추가분 점수: 0 기타 점수: 30.0

[Episode 1549] - Mean score over last 1 times:54.53073086001186

epoch 1549 start, epsilon: 0.001 time: 2020-06-29 15:28:35.287103

부족분 점수: 24.5199630854267

추가분 점수: 0 기타 점수: 30.0

[Episode 1550] - Mean score over last 1 times:54.519963085426696

epoch 1550 start, epsilon: 0.001 time: 2020-06-29 15:28:38.737182

부족분 점수: 24.50929976286319

추가분 점수: 0 기타 점수: 30.0

[Episode 1551] - Mean score over last 1 times:54.50929976286319

epoch 1551 start, epsilon: 0.001 time: 2020-06-29 15:28:42.125451

부족분 점수: 24.502123294551936

추가분 점수: 0 기타 점수: 30.0

[Episode 1552] - Mean score over last 1 times:54.502123294551936

epoch 1552 start, epsilon: 0.001 time: 2020-06-29 15:28:45.555535

부족분 점수: 24.504814470168657

추가분 점수: 0

2020. 6. 29. Untitled - Jupyter Notebook 기타 점수: 30.0 [Episode 1553] - Mean score over last 1 times:54.504814470168654 epoch 1553 start, epsilon: 0.001 time: 2020-06-29 15:28:49.002191 부족분 점수: 24.502123294551936 추가분 점수: 0 기타 점수: 30.0 [Episode 1554] - Mean score over last 1 times:54.502123294551936 epoch 1554 start, epsilon: 0.001 time: 2020-06-29 15:28:52.439707 부족분 점수: 24.56395274713425 추가분 점수: 0 기타 점수: 30.0 [Episode 1555] - Mean score over last 1 times:54.56395274713425 epoch 1555 start, epsilon: 0.001 time: 2020-06-29 15:28:55.946026 부족분 점수: 24.40141311296824 추가분 점수: 0 기타 점수: 30.0 [Episode 1556] - Mean score over last 1 times:54.40141311296824 epoch 1556 start, epsilon: 0.001 time: 2020-06-29 15:28:59.440620 부족분 점수: 24.39782180669433 추가분 점수: 0 기타 점수: 30.0 [Episode 1557] - Mean score over last 1 times:54.39782180669433 epoch 1557 start, epsilon: 0.001 time: 2020-06-29 15:29:02.883596 부족분 점수: 24.40141311296824 추가분 점수: 0 기타 점수: 30.0 [Episode 1558] - Mean score over last 1 times:54.40141311296824 epoch 1558 start, epsilon: 0.001 time: 2020-06-29 15:29:06.308701 부족분 점수: 24.405898405662775 추가분 점수: 0 기타 점수: 30.0 [Episode 1559] - Mean score over last 1 times:54.405898405662775 epoch 1559 start, epsilon: 0.001 time: 2020-06-29 15:29:09.750452 부족분 점수: 24.428334085490295 추가분 점수: 0 기타 점수: 30.0 [Episode 1560] - Mean score over last 1 times:54.42833408549029 epoch 1560 start, epsilon: 0.001 time: 2020-06-29 15:29:13.213206 부족분 점수: 24.433719508842017 추가분 점수: 0 기타 점수: 30.0 [Episode 1561] - Mean score over last 1 times:54.43371950884202 epoch 1561 start, epsilon: 0.001 time: 2020-06-29 15:29:16.661094 부족분 점수: 24.1478036043935 추가분 점수: 0 기타 점수: 30.0 [Episode 1562] - Mean score over last 1 times:54.1478036043935 epoch 1562 start, epsilon: 0.001 time: 2020-06-29 15:29:20.174174 부족분 점수: 34.43826163572481 추가분 점수: 4.045810813426263

기타 점수: 30.0

2020. 6. 29. [Episode 1563] - Mean score over last 1 times:68.48407244915107 epoch 1563 start, epsilon: 0.001 time: 2020-06-29 15:29:23.650199 부족분 점수: 34.43052450582673 추가분 점수: 4.057831397847613 기타 점수: 30.0 [Episode 1564] - Mean score over last 1 times:68.48835590367435 epoch 1564 start, epsilon: 0.001 time: 2020-06-29 15:29:27.100992 부족분 점수: 34.47115173407253 추가분 점수: 4.054220430016684 기타 점수: 30.0 [Episode 1565] - Mean score over last 1 times:68.52537216408922 epoch 1565 start, epsilon: 0.001 time: 2020-06-29 15:29:30.559829 부족분 점수: 34.46001530529329 추가분 점수: 3.9484873350387684 기타 점수: 30.0 [Episode 1566] - Mean score over last 1 times:68.40850264033206 epoch 1566 start, epsilon: 0.001 time: 2020-06-29 15:29:34.040475 부족분 점수: 34.475022603110276 추가분 점수: 3.9779299022482673 기타 점수: 30.0 [Episode 1567] - Mean score over last 1 times:68.45295250535855 epoch 1567 start, epsilon: 0.001 time: 2020-06-29 15:29:37.540537 부족분 점수: 34.47115173407253 추가분 점수: 3.9734446095537357 기타 점수: 30.0 [Episode 1568] - Mean score over last 1 times:68.44459634362627 epoch 1568 start, epsilon: 0.001 time: 2020-06-29 15:29:40.993655 부족분 점수: 34.47115173407253 추가분 점수: 3.9779299022482673 기타 점수: 30.0 [Episode 1569] - Mean score over last 1 times:68.4490816363208 epoch 1569 start, epsilon: 0.001 time: 2020-06-29 15:29:44.445573

epoch 1569 start, epsilon: 0.001 time: 2020-06-29 15:29:44.445573 부족분 점수: 34.350712408869455 추가분 점수: 4.205532086278598 기타 점수: 30.0

[Episode 1570] - Mean score over last 1 times:68.55624449514805

epoch 1570 start, epsilon: 0.001 time: 2020-06-29 15:29:47.884013 부족분 점수: 34.65271853283004 추가분 점수: 4.155794491261819 기타 점수: 30.0 [Episode 1571] - Mean score over last 1 times:68.80851302409187

epoch 1571 start, epsilon: 0.001 time: 2020-06-29 15:29:51.302959

부족분 점수: 34.36860596181418 추가분 점수: 4.154678083477441

기타 점수: 30.0

[Episode 1572] - Mean score over last 1 times:68.52328404529163

epoch 1572 start, epsilon: 0.001 time: 2020-06-29 15:29:54.733891 부족분 점수: 34.36860596181418 추가분 점수: 4.156651612263036

기타 점수: 30.0

[Episode 1573] - Mean score over last 1 times:68.52525757407722

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epoch 1573 start, epsilon: 0.001 time: 2020-06-29 15:29:58.113656
부족분 점수: 34.378278526231135
추가분 점수: 3.801033030494154
기타 점수: 30.0
[Episode 1574] - Mean score over last 1 times:68.17931155672528
epoch 1574 start, epsilon: 0.001 time: 2020-06-29 15:30:01.539965
부족분 점수: 34.28870938160409
추가분 점수: 3.8900568741257913
기타 점수: 30.0
[Episode 1575] - Mean score over last 1 times:68.17876625572988
epoch 1575 start, epsilon: 0.001 time: 2020-06-29 15:30:04.990590
부족분 점수: 34.36860596181418
추가분 점수: 4.206365859180856
기타 점수: 30.0
[Episode 1576] - Mean score over last 1 times:68.57497182099505
epoch 1576 start, epsilon: 0.001 time: 2020-06-29 15:30:08.520767
부족분 점수: 34.36860596181418
추가분 점수: 4.242263561328543
기타 점수: 30.0
[Episode 1577] - Mean score over last 1 times:68.61086952314272
epoch 1577 start, epsilon: 0.001 time: 2020-06-29 15:30:11.988788
부족분 점수: 34.36860596181418
추가분 점수: 4.193430397934554
기타 점수: 30.0
[Episode 1578] - Mean score over last 1 times:68.56203635974873
epoch 1578 start, epsilon: 0.001 time: 2020-06-29 15:30:15.434141
부족분 점수: 34.36860596181418
추가분 점수: 4.188409327811302
기타 점수: 30.0
[Episode 1579] - Mean score over last 1 times:68.55701528962548
epoch 1579 start, epsilon: 0.001 time: 2020-06-29 15:30:18.825013
부족분 점수: 34.38602026430663
추가분 점수: 4.134545263515554
기타 점수: 30.0
[Episode 1580] - Mean score over last 1 times:68.52056552782219
epoch 1580 start, epsilon: 0.001 time: 2020-06-29 15:30:22.314506
부족분 점수: 40.97039307446231
추가분 점수: 5.085858640163707
기타 점수: 30.0
[Episode 1581] - Mean score over last 1 times:76.05625171462601
epoch 1581 start, epsilon: 0.001 time: 2020-06-29 15:30:25.733800
부족분 점수: 34.41503795755746
추가분 점수: 4.008872277603981
기타 점수: 30.0
[Episode 1582] - Mean score over last 1 times:68.42391023516144
epoch 1582 start, epsilon: 0.001 time: 2020-06-29 15:30:29.187884
부족분 점수: 34.50493274672259
추가분 점수: 3.9874651429779218
기타 점수: 30.0
[Episode 1583] - Mean score over last 1 times:68.49239788970051
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epoch 1583 start, epsilon: 0.001 time: 2020-06-29 15:30:32.628441
부족분 점수: 34.50493274672259
추가분 점수: 4.0009210210615205
기타 점수: 30.0
[Episode 1584] - Mean score over last 1 times:68.50585376778412
epoch 1584 start, epsilon: 0.001 time: 2020-06-29 15:30:36.013808
부족분 점수: 34.511384195118836
추가분 점수: 3.9686711521641693
기타 점수: 30.0
[Episode 1585] - Mean score over last 1 times:68.48005534728301
epoch 1585 start, epsilon: 0.001 time: 2020-06-29 15:30:39.477057
부족분 점수: 34.50493274672259
추가분 점수: 4.036818723209208
기타 점수: 30.0
[Episode 1586] - Mean score over last 1 times:68.5417514699318
epoch 1586 start, epsilon: 0.001 time: 2020-06-29 15:30:42.930500
부족분 점수: 34.50493274672259
추가분 점수: 3.9066923946332555
기타 점수: 30.0
[Episode 1587] - Mean score over last 1 times:68.41162514135584
epoch 1587 start, epsilon: 0.001 time: 2020-06-29 15:30:46.367679
부족분 점수: 34.473978082893744
추가분 점수: 3.9109429774908966
기타 점수: 30.0
[Episode 1588] - Mean score over last 1 times:68.38492106038464
epoch 1588 start, epsilon: 0.001 time: 2020-06-29 15:30:49.789389
부족분 점수: 34.473978082893744
추가분 점수: 3.9001782750240155
기타 점수: 30.0
[Episode 1589] - Mean score over last 1 times:68.37415635791777
epoch 1589 start, epsilon: 0.001 time: 2020-06-29 15:30:53.203730
부족분 점수: 34.473978082893744
추가분 점수: 3.910225330659771
기타 점수: 30.0
[Episode 1590] - Mean score over last 1 times:68.38420341355351
epoch 1590 start, epsilon: 0.001 time: 2020-06-29 15:30:56.650142
부족분 점수: 34.473978082893744
추가분 점수: 3.914172388230961
기타 점수: 30.0
[Episode 1591] - Mean score over last 1 times:68.3881504711247
epoch 1591 start, epsilon: 0.001 time: 2020-06-29 15:31:00.101642
부족분 점수: 34.46340385176047
추가분 점수: 3.811551349074662
기타 점수: 30.0
[Episode 1592] - Mean score over last 1 times:68.27495520083514
epoch 1592 start, epsilon: 0.001 time: 2020-06-29 15:31:03.533256
부족분 점수: 34.50493581884087
추가분 점수: 3.620748226696524
기타 점수: 30.0
[Episode 1593] - Mean score over last 1 times:68.1256840455374
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epoch 1593 start, epsilon: 0.001 time: 2020-06-29 15:31:06.970613
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1594] - Mean score over last 1 times:54.54576580689341
epoch 1594 start, epsilon: 0.001 time: 2020-06-29 15:31:10.441051
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1595] - Mean score over last 1 times:54.54576580689341
epoch 1595 start, epsilon: 0.001 time: 2020-06-29 15:31:13.887977
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1596] - Mean score over last 1 times:54.54576580689341
epoch 1596 start, epsilon: 0.001 time: 2020-06-29 15:31:17.356529
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1597] - Mean score over last 1 times:54.54576580689341
epoch 1597 start, epsilon: 0.001 time: 2020-06-29 15:31:20.847496
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1598] - Mean score over last 1 times:54.54576580689341
epoch 1598 start, epsilon: 0.001 time: 2020-06-29 15:31:24.287858
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1599] - Mean score over last 1 times:54.54576580689341
epoch 1599 start, epsilon: 0.001 time: 2020-06-29 15:31:27.765411
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1600] - Mean score over last 1 times:54.54576580689341
epoch 1600 start, epsilon: 0.001 time: 2020-06-29 15:31:31.211518
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1601] - Mean score over last 1 times:54.54576580689341
epoch 1601 start, epsilon: 0.001 time: 2020-06-29 15:31:34.713623
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1602] - Mean score over last 1 times:54.54576580689341
epoch 1602 start, epsilon: 0.001 time: 2020-06-29 15:31:38.142622
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1603] - Mean score over last 1 times:54.54576580689341
epoch 1603 start, epsilon: 0.001 time: 2020-06-29 15:31:41.539566
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부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1604] - Mean score over last 1 times:54.54576580689341
epoch 1604 start, epsilon: 0.001 time: 2020-06-29 15:31:45.007073
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1605] - Mean score over last 1 times:54.54576580689341
epoch 1605 start, epsilon: 0.001 time: 2020-06-29 15:31:48.428098
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1606] - Mean score over last 1 times:54.54576580689341
epoch 1606 start, epsilon: 0.001 time: 2020-06-29 15:31:51.874549
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1607] - Mean score over last 1 times:54.54576580689341
epoch 1607 start. epsilon: 0.001 time: 2020-06-29 15:31:55.316394
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1608] - Mean score over last 1 times:54.54576580689341
epoch 1608 start, epsilon: 0.001 time: 2020-06-29 15:31:58.756779
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1609] - Mean score over last 1 times:54.54576580689341
epoch 1609 start, epsilon: 0.001 time: 2020-06-29 15:32:02.286062
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1610] - Mean score over last 1 times:54.54576580689341
epoch 1610 start, epsilon: 0.001 time: 2020-06-29 15:32:05.740945
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1611] - Mean score over last 1 times:54.54576580689341
epoch 1611 start, epsilon: 0.001 time: 2020-06-29 15:32:09.258408
부족분 점수: 24.56395274713425
추가분 점수: 0
기타 점수: 30.0
[Episode 1612] - Mean score over last 1 times:54.56395274713425
epoch 1612 start, epsilon: 0.001 time: 2020-06-29 15:32:12.728262
부족분 점수: 24.56395274713425
추가분 점수: 0
기타 점수: 30.0
[Episode 1613] - Mean score over last 1 times:54.56395274713425
epoch 1613 start, epsilon: 0.001 time: 2020-06-29 15:32:16.179052
부족분 점수: 24.56395274713425
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2020. 6. 29.
 추가분 점수: 0
 기타 점수: 30.0
```

[Episode 1614] - Mean score over last 1 times:54.56395274713425

epoch 1614 start, epsilon: 0.001 time: 2020-06-29 15:32:19.629260

부족분 점수: 24.56395274713425

추가분 점수: 0 기타 점수: 30.0

[Episode 1615] - Mean score over last 1 times:54.56395274713425

epoch 1615 start, epsilon: 0.001 time: 2020-06-29 15:32:23.088192

부족분 점수: 24.56395274713425

추가분 점수: 0 기타 점수: 30.0

[Episode 1616] - Mean score over last 1 times:54.56395274713425

epoch 1616 start, epsilon: 0.001 time: 2020-06-29 15:32:26.472847

부족분 점수: 24.542842686346244

추가분 점수: 0 기타 점수: 30.0

[Episode 1617] - Mean score over last 1 times:54.54284268634625

epoch 1617 start, epsilon: 0.001 time: 2020-06-29 15:32:29.918175

부족분 점수: 24.540149974670385

추가분 점수: 0 기타 점수: 30.0

[Episode 1618] - Mean score over last 1 times:54.540149974670385

epoch 1618 start, epsilon: 0.001 time: 2020-06-29 15:32:33.346336

부족분 점수: 24.540598503939837

추가분 점수: 0 기타 점수: 30.0

[Episode 1619] - Mean score over last 1 times:54.54059850393983

epoch 1619 start. epsilon: 0.001 time: 2020-06-29 15:32:36.815356

부족분 점수: 25.973419110971978

추가분 점수: 0 기타 점수: 30.0

[Episode 1620] - Mean score over last 1 times:55.973419110971975

epoch 1620 start, epsilon: 0.001 time: 2020-06-29 15:32:40.259693

부족분 점수: 23.664931124644134

추가분 점수: 0 기타 점수: 30.0

[Episode 1621] - Mean score over last 1 times:53.664931124644134

epoch 1621 start, epsilon: 0.001 time: 2020-06-29 15:32:43.704841

부족분 점수: 23.664931124644134

추가분 점수: 0 기타 점수: 30.0

[Episode 1622] - Mean score over last 1 times:53.664931124644134

epoch 1622 start, epsilon: 0.001 time: 2020-06-29 15:32:47.129769

부족분 점수: 23.679290205503207

추가분 점수: 0 기타 점수: 30.0

[Episode 1623] - Mean score over last 1 times:53.67929020550321

epoch 1623 start, epsilon: 0.001 time: 2020-06-29 15:32:50.588953

부족분 점수: 23.88030504905712

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추가분 점수: 0
기타 점수: 30.0
```

[Episode 1624] - Mean score over last 1 times:53.88030504905712

epoch 1624 start, epsilon: 0.001 time: 2020-06-29 15:32:54.024824

부족분 점수: 23.88927563444619

추가분 점수: 0 기타 점수: 30.0

[Episode 1625] - Mean score over last 1 times:53.88927563444619

epoch 1625 start, epsilon: 0.001 time: 2020-06-29 15:32:57.475362

부족분 점수: 23.88030504905712

추가분 점수: 0 기타 점수: 30.0

[Episode 1626] - Mean score over last 1 times:53.88030504905712

epoch 1626 start, epsilon: 0.001 time: 2020-06-29 15:33:00.927634

부족분 점수: 23.885693544527133

추가분 점수: 0 기타 점수: 30.0

[Episode 1627] - Mean score over last 1 times:53.88569354452713

epoch 1627 start, epsilon: 0.001 time: 2020-06-29 15:33:04.387663

부족분 점수: 23.95568868750812

추가분 점수: 0 기타 점수: 30.0

[Episode 1628] - Mean score over last 1 times:53.955688687508115

epoch 1628 start, epsilon: 0.001 time: 2020-06-29 15:33:07.849264

부족분 점수: 34.43620638859286 추가분 점수: 3.508532962139521

기타 점수: 30.0

[Episode 1629] - Mean score over last 1 times:67.94473935073238

epoch 1629 start, epsilon: 0.001 time: 2020-06-29 15:33:11.285340

부족분 점수: 34.43620638859286 추가분 점수: 3.508532962139521

기타 점수: 30.0

[Episode 1630] - Mean score over last 1 times:67.94473935073238

epoch 1630 start, epsilon: 0.001 time: 2020-06-29 15:33:14.776428

부족분 점수: 34.403313218126854 추가분 점수: 3.831398462036144

기타 점수: 30.0

[Episode 1631] - Mean score over last 1 times:68.234711680163

epoch 1631 start, epsilon: 0.001 time: 2020-06-29 15:33:18.274254

부족분 점수: 34.403313218126854 추가분 점수: 3.8416101832119187

기타 점수: 30.0

[Episode 1632] - Mean score over last 1 times:68.24492340133878

epoch 1632 start, epsilon: 0.001 time: 2020-06-29 15:33:21.749890

부족분 점수: 34.56132762206063 추가분 점수: 3.0224028081618814

기타 점수: 30.0

[Episode 1633] - Mean score over last 1 times:67.58373043022252

epoch 1633 start, epsilon: 0.001 time: 2020-06-29 15:33:25.258042

부족분 점수: 34.58778931289924 추가분 점수: 2.3378365467178575 기타 점수: 30.0

[Episode 1634] - Mean score over last 1 times:66.9256258596171

epoch 1634 start, epsilon: 0.001 time: 2020-06-29 15:33:28.738213

부족분 점수: 34.58778931289924 추가분 점수: 2.303806692486796

기타 점수: 30.0

[Episode 1635] - Mean score over last 1 times:66.89159600538603

epoch 1635 start, epsilon: 0.001 time: 2020-06-29 15:33:32.315167

부족분 점수: 34.58778931289924 추가분 점수: 6.6054862502738025

기타 점수: 30.0

[Episode 1636] - Mean score over last 1 times:71.19327556317305

epoch 1636 start, epsilon: 0.001 time: 2020-06-29 15:33:35.787304

부족분 점수: 34.58778931289924 추가분 점수: 6.6054862502738025

기타 점수: 30.0

[Episode 1637] - Mean score over last 1 times:71.19327556317305

epoch 1637 start, epsilon: 0.001 time: 2020-06-29 15:33:39.254797

부족분 점수: 34.58778931289924 추가분 점수: 6.6054862502738025

기타 점수: 30.0

[Episode 1638] - Mean score over last 1 times:71.19327556317305

epoch 1638 start, epsilon: 0.001 time: 2020-06-29 15:33:42.769467

부족분 점수: 34.58778931289924 추가분 점수: 6.592792257524616

기타 점수: 30.0

[Episode 1639] - Mean score over last 1 times:71.18058157042385

epoch 1639 start, epsilon: 0.001 time: 2020-06-29 15:33:46.216836

부족분 점수: 34.519474618619554 추가분 점수: 6.616559393416388

기타 점수: 30.0

[Episode 1640] - Mean score over last 1 times:71.13603401203594

epoch 1640 start, epsilon: 0.001 time: 2020-06-29 15:33:49.659282

부족분 점수: 34.58778931289924 추가분 점수: 6.580712688432215

기타 점수: 30.0

[Episode 1641] - Mean score over last 1 times:71.16850200133146

epoch 1641 start, epsilon: 0.001 time: 2020-06-29 15:33:53.084228

부족분 점수: 34.58778931289924 추가분 점수: 6.627928074337889

기타 점수: 30.0

[Episode 1642] - Mean score over last 1 times:71.21571738723713

epoch 1642 start, epsilon: 0.001 time: 2020-06-29 15:33:56.485012

부족분 점수: 34.58778931289924 추가분 점수: 6.622556168306614

기타 점수: 30.0

[Episode 1643] - Mean score over last 1 times:71.21034548120585

epoch 1643 start, epsilon: 0.001 time: 2020-06-29 15:33:59.932889

부족분 점수: 34.58778931289924 추가분 점수: 6.5406780718033914

기타 점수: 30.0

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[Episode 1644] - Mean score over last 1 times:71.12846738470263
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epoch 1644 start, epsilon: 0.001 time: 2020-06-29 15:34:03.354329

부족분 점수: 34.58778931289924 추가분 점수: 6.545163364497926

기타 점수: 30.0

[Episode 1645] - Mean score over last 1 times:71.13295267739716

epoch 1645 start, epsilon: 0.001 time: 2020-06-29 15:34:06.877278

부족분 점수: 34.58778931289924 추가분 점수: 4.779901464878162

기타 점수: 30.0

[Episode 1646] - Mean score over last 1 times:69.3676907777774

epoch 1646 start, epsilon: 0.001 time: 2020-06-29 15:34:10.361092

부족분 점수: 34.58778931289924 추가분 점수: 4.785614376038952

기타 점수: 30.0

[Episode 1647] - Mean score over last 1 times:69.3734036889382

epoch 1647 start, epsilon: 0.001 time: 2020-06-29 15:34:13.822270

부족분 점수: 36.63948968428762 추가분 점수: 4.410338538218534

기타 점수: 30.0

[Episode 1648] - Mean score over last 1 times:71.04982822250615

epoch 1648 start, epsilon: 0.001 time: 2020-06-29 15:34:17.281490

부족분 점수: 36.63948968428762 추가분 점수: 4.410338538218534

기타 점수: 30.0

[Episode 1649] - Mean score over last 1 times:71.04982822250615

epoch 1649 start, epsilon: 0.001 time: 2020-06-29 15:34:20.748160

부족분 점수: 36.63948968428762 추가분 점수: 3.512950668231809

기타 점수: 30.0

[Episode 1650] - Mean score over last 1 times:70.15244035251942

epoch 1650 start, epsilon: 0.001 time: 2020-06-29 15:34:24.221590

부족분 점수: 36.63948968428762 추가분 점수: 0.11076153818504686

기타 점수: 30.0

[Episode 1651] - Mean score over last 1 times:66.75025122247266

epoch 1651 start, epsilon: 0.001 time: 2020-06-29 15:34:27.625217

부족분 점수: 38.81377064732297 추가분 점수: 0.7721271623488546

기타 점수: 30.0

[Episode 1652] - Mean score over last 1 times:69.58589780967182

epoch 1652 start, epsilon: 0.001 time: 2020-06-29 15:34:31.066643

부족분 점수: 36.63948968428762 추가분 점수: 1.436535412461064

기타 점수: 30.0

[Episode 1653] - Mean score over last 1 times:68.07602509674868

epoch 1653 start, epsilon: 0.001 time: 2020-06-29 15:34:34.840956

부족분 점수: 31.345423450031838

추가분 점수: 0 기타 점수: 30.0

[Episode 1654] - Mean score over last 1 times:61.34542345003184

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epoch 1654 start, epsilon: 0.001 time: 2020-06-29 15:34:38.306865
부족분 점수: 36.533496995314714
추가분 점수: 2.218681981381121
기타 점수: 30.0
[Episode 1655] - Mean score over last 1 times:68.75217897669583
epoch 1655 start, epsilon: 0.001 time: 2020-06-29 15:34:41.791867
부족분 점수: 24.546220480399423
추가분 점수: 0
기타 점수: 30.0
[Episode 1656] - Mean score over last 1 times:54.54622048039943
epoch 1656 start, epsilon: 0.001 time: 2020-06-29 15:34:45.232140
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1657] - Mean score over last 1 times:54.54576580689341
epoch 1657 start, epsilon: 0.001 time: 2020-06-29 15:34:48.688832
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1658] - Mean score over last 1 times:54.54576580689341
epoch 1658 start, epsilon: 0.001 time: 2020-06-29 15:34:52.154398
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1659] - Mean score over last 1 times:54.54576580689341
epoch 1659 start, epsilon: 0.001 time: 2020-06-29 15:34:55.607310
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1660] - Mean score over last 1 times:54.54576580689341
epoch 1660 start, epsilon: 0.001 time: 2020-06-29 15:34:59.054460
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1661] - Mean score over last 1 times:54.54576580689341
epoch 1661 start, epsilon: 0.001 time: 2020-06-29 15:35:02.495133
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1662] - Mean score over last 1 times:54.54576580689341
epoch 1662 start, epsilon: 0.001 time: 2020-06-29 15:35:05.970153
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1663] - Mean score over last 1 times:54.54576580689341
epoch 1663 start, epsilon: 0.001 time: 2020-06-29 15:35:09.398796
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1664] - Mean score over last 1 times:54.54576580689341
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epoch 1664 start, epsilon: 0.001 time: 2020-06-29 15:35:12.884577
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1665] - Mean score over last 1 times:54.54576580689341
epoch 1665 start, epsilon: 0.001 time: 2020-06-29 15:35:16.344513
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1666] - Mean score over last 1 times:54.54576580689341
epoch 1666 start, epsilon: 0.001 time: 2020-06-29 15:35:19.847887
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1667] - Mean score over last 1 times:54.54576580689341
epoch 1667 start, epsilon: 0.001 time: 2020-06-29 15:35:23.379533
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1668] - Mean score over last 1 times:54.54576580689341
epoch 1668 start, epsilon: 0.001 time: 2020-06-29 15:35:26.820209
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1669] - Mean score over last 1 times:54.54576580689341
epoch 1669 start, epsilon: 0.001 time: 2020-06-29 15:35:30.266870
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1670] - Mean score over last 1 times:54.54576580689341
epoch 1670 start, epsilon: 0.001 time: 2020-06-29 15:35:33.717753
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1671] - Mean score over last 1 times:54.54576580689341
epoch 1671 start, epsilon: 0.001 time: 2020-06-29 15:35:37.187790
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1672] - Mean score over last 1 times:54.54576580689341
epoch 1672 start, epsilon: 0.001 time: 2020-06-29 15:35:40.684271
부족분 점수: 31.963019068945396
추가분 점수: 0
기타 점수: 30.0
[Episode 1673] - Mean score over last 1 times:61.9630190689454
epoch 1673 start, epsilon: 0.001 time: 2020-06-29 15:35:44.162780
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1674] - Mean score over last 1 times:54.54576580689341
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epoch 1674 start, epsilon: 0.001 time: 2020-06-29 15:35:47.641843
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1675] - Mean score over last 1 times:54.54576580689341
epoch 1675 start, epsilon: 0.001 time: 2020-06-29 15:35:51.109101
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1676] - Mean score over last 1 times:54.54576580689341
epoch 1676 start, epsilon: 0.001 time: 2020-06-29 15:35:54.624813
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1677] - Mean score over last 1 times:54.54576580689341
epoch 1677 start, epsilon: 0.001 time: 2020-06-29 15:35:58.069242
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1678] - Mean score over last 1 times:54.54576580689341
epoch 1678 start, epsilon: 0.001 time: 2020-06-29 15:36:01.506352
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1679] - Mean score over last 1 times:54.54576580689341
epoch 1679 start, epsilon: 0.001 time: 2020-06-29 15:36:04.960928
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1680] - Mean score over last 1 times:54.54576580689341
epoch 1680 start, epsilon: 0.001 time: 2020-06-29 15:36:08.521268
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1681] - Mean score over last 1 times:54.54576580689341
epoch 1681 start, epsilon: 0.001 time: 2020-06-29 15:36:12.048785
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1682] - Mean score over last 1 times:54.54576580689341
epoch 1682 start, epsilon: 0.001 time: 2020-06-29 15:36:15.522616
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1683] - Mean score over last 1 times:54.54576580689341
epoch 1683 start, epsilon: 0.001 time: 2020-06-29 15:36:18.974397
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1684] - Mean score over last 1 times:54.54576580689341
epoch 1684 start, epsilon: 0.001 time: 2020-06-29 15:36:22.435434
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부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1685] - Mean score over last 1 times:54.54576580689341
epoch 1685 start, epsilon: 0.001 time: 2020-06-29 15:36:25.883345
부족분 점수: 24.426543040530763
추가분 점수: 0
기타 점수: 30.0
[Episode 1686] - Mean score over last 1 times:54.42654304053076
epoch 1686 start, epsilon: 0.001 time: 2020-06-29 15:36:29.369851
부족분 점수: 24.42923421614748
추가분 점수: 0
기타 점수: 30.0
[Episode 1687] - Mean score over last 1 times:54.42923421614748
epoch 1687 start, epsilon: 0.001 time: 2020-06-29 15:36:32.722984
부족분 점수: 23.400854909076052
추가분 점수: 0
기타 점수: 30.0
[Episode 1688] - Mean score over last 1 times:53.40085490907605
epoch 1688 start. epsilon: 0.001 time: 2020-06-29 15:36:36.190538
부족분 점수: 23.385148704349472
추가분 점수: 0
기타 점수: 30.0
[Episode 1689] - Mean score over last 1 times:53.385148704349476
epoch 1689 start, epsilon: 0.001 time: 2020-06-29 15:36:39.642217
부족분 점수: 23.69523449939679
추가분 점수: 0
기타 점수: 30.0
[Episode 1690] - Mean score over last 1 times:53.69523449939679
epoch 1690 start, epsilon: 0.001 time: 2020-06-29 15:36:43.126962
부족분 점수: 23.69523449939679
추가분 점수: 0
기타 점수: 30.0
[Episode 1691] - Mean score over last 1 times:53.69523449939679
epoch 1691 start, epsilon: 0.001 time: 2020-06-29 15:36:46.586938
부족분 점수: 36.668822269662556
추가분 점수: 3.0691020781958556
기타 점수: 30.0
[Episode 1692] - Mean score over last 1 times:69.73792434785841
epoch 1692 start, epsilon: 0.001 time: 2020-06-29 15:36:50.079924
부족분 점수: 37.51685748105348
추가분 점수: 4.036757895267186
기타 점수: 30.0
[Episode 1693] - Mean score over last 1 times:71.55361537632066
epoch 1693 start, epsilon: 0.001 time: 2020-06-29 15:36:53.533591
부족분 점수: 36.559706772454035
추가분 점수: 3.8655972827728213
기타 점수: 30.0
[Episode 1694] - Mean score over last 1 times:70.42530405522686
epoch 1694 start, epsilon: 0.001 time: 2020-06-29 15:36:57.027601
부족분 점수: 36.559706772454035
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추가분 점수: 3.8655972827728213
기타 점수: 30.0
[Episode 1695] - Mean score over last 1 times:70.42530405522686
epoch 1695 start, epsilon: 0.001 time: 2020-06-29 15:37:00.471976
부족분 점수: 36.45471098586426
추가분 점수: 3.3827825588471927
기타 점수: 30.0
[Episode 1696] - Mean score over last 1 times:69.83749354471145
epoch 1696 start, epsilon: 0.001 time: 2020-06-29 15:37:03.948815
부족분 점수: 36.45471098586426
추가분 점수: 3.374524704899997
기타 점수: 30.0
[Episode 1697] - Mean score over last 1 times:69.82923569076425
epoch 1697 start, epsilon: 0.001 time: 2020-06-29 15:37:07.443667
부족분 점수: 36.460096409215986
추가분 점수: 3.370934627473401
기타 점수: 30.0
[Episode 1698] - Mean score over last 1 times:69.83103103668938
epoch 1698 start, epsilon: 0.001 time: 2020-06-29 15:37:10.870285
부족분 점수: 27.2305037997495
추가분 점수: 0
기타 점수: 30.0
[Episode 1699] - Mean score over last 1 times: 57.2305037997495
epoch 1699 start, epsilon: 0.001 time: 2020-06-29 15:37:14.347328
부족분 점수: 36.45471098586426
추가분 점수: 1.8731977034072567
기타 점수: 30.0
[Episode 1700] - Mean score over last 1 times:68.32790868927151
epoch 1700 start, epsilon: 0.001 time: 2020-06-29 15:37:17.826603
부족분 점수: 36.462787584832704
추가분 점수: 1.9036743456311256
기타 점수: 30.0
[Episode 1701] - Mean score over last 1 times:68.36646193046383
epoch 1701 start, epsilon: 0.001 time: 2020-06-29 15:37:21.300593
부족분 점수: 36.455608044403164
추가분 점수: 1.8958625632587567
기타 점수: 30.0
[Episode 1702] - Mean score over last 1 times:68.35147060766192
epoch 1702 start, epsilon: 0.001 time: 2020-06-29 15:37:24.772564
부족분 점수: 36.44842850397363
추가분 점수: 1.925838450202344
기타 점수: 30.0
[Episode 1703] - Mean score over last 1 times:68.37426695417597
epoch 1703 start, epsilon: 0.001 time: 2020-06-29 15:37:28.209434
부족분 점수: 36.63948968428762
추가분 점수: 0
기타 점수: 30.0
[Episode 1704] - Mean score over last 1 times:66.63948968428761
epoch 1704 start, epsilon: 0.001 time: 2020-06-29 15:37:31.662951
부족분 점수: 36.63948968428762
추가분 점수: 0
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2020. 6. 29. Untitled - Jupyter Notebook 기타 점수: 30.0 [Episode 1705] - Mean score over last 1 times:66.63948968428761 epoch 1705 start, epsilon: 0.001 time: 2020-06-29 15:37:35.125352 부족분 점수: 36.63948968428762 추가분 점수: 0 기타 점수: 30.0 [Episode 1706] - Mean score over last 1 times:66.63948968428761 epoch 1706 start. epsilon: 0.001 time: 2020-06-29 15:37:38.636845 부족분 점수: 36.63948968428762 추가분 점수: 0 기타 점수: 30.0 [Episode 1707] - Mean score over last 1 times:66.63948968428761 epoch 1707 start, epsilon: 0.001 time: 2020-06-29 15:37:42.078261 부족분 점수: 36.63948968428762 추가분 점수: 0 기타 점수: 30.0 [Episode 1708] - Mean score over last 1 times:66.63948968428761 epoch 1708 start, epsilon: 0.001 time: 2020-06-29 15:37:45.527152 부족분 점수: 36.61015709891269 추가분 점수: 0 기타 점수: 30.0 [Episode 1709] - Mean score over last 1 times:66.61015709891268 epoch 1709 start, epsilon: 0.001 time: 2020-06-29 15:37:49.007432 부족분 점수: 36.63948968428762 추가분 점수: 0 기타 점수: 30.0 [Episode 1710] - Mean score over last 1 times:66.63948968428761 epoch 1710 start, epsilon: 0.001 time: 2020-06-29 15:37:52.422015 부족분 점수: 36.63948968428762 추가분 점수: 1.281351043890433 기타 점수: 30.0 [Episode 1711] - Mean score over last 1 times:67.92084072817805 epoch 1711 start, epsilon: 0.001 time: 2020-06-29 15:37:55.875805 부족분 점수: 36.63948968428762 추가분 점수: 1.1180224897491087 기타 점수: 30.0 [Episode 1712] - Mean score over last 1 times:67.75751217403672 epoch 1712 start, epsilon: 0.001 time: 2020-06-29 15:37:59.307309 부족분 점수: 36.63948968428762 추가분 점수: 1.1180224897491087 기타 점수: 30.0 [Episode 1713] - Mean score over last 1 times:67.75751217403672 epoch 1713 start, epsilon: 0.001 time: 2020-06-29 15:38:02.728782 부족분 점수: 36.63948968428762 추가분 점수: 1.1015067818547175 기타 점수: 30.0 [Episode 1714] - Mean score over last 1 times:67.74099646614233 epoch 1714 start, epsilon: 0.001 time: 2020-06-29 15:38:06.248903

추가분 점수: 1.1382665203928743

부족분 점수: 36.63948968428762

기타 점수: 30.0

[Episode 1715] - Mean score over last 1 times:67.77775620468049

epoch 1715 start, epsilon: 0.001 time: 2020-06-29 15:38:09.773311

부족분 점수: 41.50709674684179 추가분 점수: 1.6319387247575556

기타 점수: 30.0

[Episode 1716] - Mean score over last 1 times:73.13903547159934

epoch 1716 start, epsilon: 0.001 time: 2020-06-29 15:38:13.240829

부족분 점수: 36.69815485503749 추가분 점수: 1.0986042445000632

기타 점수: 30.0

[Episode 1717] - Mean score over last 1 times:67.79675909953755

epoch 1717 start, epsilon: 0.001 time: 2020-06-29 15:38:16.747620

부족분 점수: 36.63948968428762 추가분 점수: 1.1539201918967956

기타 점수: 30.0

[Episode 1718] - Mean score over last 1 times:67.79340987618441

epoch 1718 start, epsilon: 0.001 time: 2020-06-29 15:38:20.247029

부족분 점수: 36.63948968428762 추가분 점수: 2.2462149198653303

기타 점수: 30.0

[Episode 1719] - Mean score over last 1 times:68.88570460415295

epoch 1719 start, epsilon: 0.001 time: 2020-06-29 15:38:23.690545

부족분 점수: 36.61015709891269 추가분 점수: 2.09715205418725

기타 점수: 30.0

[Episode 1720] - Mean score over last 1 times:68.70730915309994

epoch 1720 start, epsilon: 0.001 time: 2020-06-29 15:38:27.051002

부족분 점수: 36.63948968428762 추가분 점수: 2.0717444071318614

기타 점수: 30.0

[Episode 1721] - Mean score over last 1 times:68.71123409141947

epoch 1721 start, epsilon: 0.001 time: 2020-06-29 15:38:30.530535

부족분 점수: 36.63948968428762 추가분 점수: 2.098656163299062

기타 점수: 30.0

[Episode 1722] - Mean score over last 1 times:68.73814584758668

epoch 1722 start, epsilon: 0.001 time: 2020-06-29 15:38:33.951786

부족분 점수: 36.63948968428762 추가분 점수: 2.0717444071318614

기타 점수: 30.0

[Episode 1723] - Mean score over last 1 times:68.71123409141947

epoch 1723 start, epsilon: 0.001 time: 2020-06-29 15:38:37.450237

부족분 점수: 36.78071956997717 추가분 점수: 2.261612376704374

기타 점수: 30.0

[Episode 1724] - Mean score over last 1 times:69.04233194668154

epoch 1724 start, epsilon: 0.001 time: 2020-06-29 15:38:40.893116

부족분 점수: 32.91884108638704 추가분 점수: 4.2591276474363315

기타 점수: 30.0

2020. 6. 29. [Episode 1725] - Mean score over last 1 times:67.17796873382338 epoch 1725 start, epsilon: 0.001 time: 2020-06-29 15:38:44.360896 부족분 점수: 26.760048822103766 추가분 점수: 0.5017549475696925 기타 점수: 30.0 [Episode 1726] - Mean score over last 1 times:57.26180376967346 epoch 1726 start, epsilon: 0.001 time: 2020-06-29 15:38:47.800081 부족분 점수: 32.88950850101211 추가분 점수: 5.077487117840005 기타 점수: 30.0 [Episode 1727] - Mean score over last 1 times:67.96699561885211 epoch 1727 start, epsilon: 0.001 time: 2020-06-29 15:38:51.243068 부족분 점수: 32.91884108638704 추가분 점수: 5.931519411332983 기타 점수: 30.0 [Episode 1728] - Mean score over last 1 times:68.85036049772003 epoch 1728 start, epsilon: 0.001 time: 2020-06-29 15:38:54.697262 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1729] - Mean score over last 1 times:54.54576580689341 epoch 1729 start, epsilon: 0.001 time: 2020-06-29 15:38:58.195058 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1730] - Mean score over last 1 times:54.54576580689341 epoch 1730 start, epsilon: 0.001 time: 2020-06-29 15:39:01.660902 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1731] - Mean score over last 1 times:54.54576580689341 epoch 1731 start, epsilon: 0.001 time: 2020-06-29 15:39:05.064277 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1732] - Mean score over last 1 times:54.54576580689341 epoch 1732 start, epsilon: 0.001 time: 2020-06-29 15:39:08.493097 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1733] - Mean score over last 1 times:54.54576580689341 epoch 1733 start, epsilon: 0.001 time: 2020-06-29 15:39:11.942646 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1734] - Mean score over last 1 times:54.54576580689341 epoch 1734 start, epsilon: 0.001 time: 2020-06-29 15:39:15.316482 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0

[Episode 1735] - Mean score over last 1 times:54.54576580689341

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epoch 1735 start, epsilon: 0.001 time: 2020-06-29 15:39:18.770243
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1736] - Mean score over last 1 times:54.54576580689341
epoch 1736 start, epsilon: 0.001 time: 2020-06-29 15:39:22.239536
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1737] - Mean score over last 1 times:54.54576580689341
epoch 1737 start, epsilon: 0.001 time: 2020-06-29 15:39:25.741870
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1738] - Mean score over last 1 times:54.54576580689341
epoch 1738 start, epsilon: 0.001 time: 2020-06-29 15:39:29.180999
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1739] - Mean score over last 1 times:54.54576580689341
epoch 1739 start, epsilon: 0.001 time: 2020-06-29 15:39:32.619840
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1740] - Mean score over last 1 times:54.54576580689341
epoch 1740 start, epsilon: 0.001 time: 2020-06-29 15:39:36.074365
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1741] - Mean score over last 1 times:54.54576580689341
epoch 1741 start, epsilon: 0.001 time: 2020-06-29 15:39:39.494377
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1742] - Mean score over last 1 times:54.54576580689341
epoch 1742 start, epsilon: 0.001 time: 2020-06-29 15:39:42.951790
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1743] - Mean score over last 1 times:54.54576580689341
epoch 1743 start, epsilon: 0.001 time: 2020-06-29 15:39:46.387612
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1744] - Mean score over last 1 times:54.54576580689341
epoch 1744 start, epsilon: 0.001 time: 2020-06-29 15:39:49.878374
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1745] - Mean score over last 1 times:54.54576580689341
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epoch 1745 start, epsilon: 0.001 time: 2020-06-29 15:39:53.350826
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1746] - Mean score over last 1 times:54.54576580689341
epoch 1746 start, epsilon: 0.001 time: 2020-06-29 15:39:56.793772
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1747] - Mean score over last 1 times:54.54576580689341
epoch 1747 start, epsilon: 0.001 time: 2020-06-29 15:40:00.260304
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1748] - Mean score over last 1 times:54.54576580689341
epoch 1748 start, epsilon: 0.001 time: 2020-06-29 15:40:03.726163
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1749] - Mean score over last 1 times:54.54576580689341
epoch 1749 start, epsilon: 0.001 time: 2020-06-29 15:40:07.223640
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1750] - Mean score over last 1 times:54.54576580689341
epoch 1750 start, epsilon: 0.001 time: 2020-06-29 15:40:10.719571
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1751] - Mean score over last 1 times:54.54576580689341
epoch 1751 start, epsilon: 0.001 time: 2020-06-29 15:40:14.186457
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1752] - Mean score over last 1 times:54.54576580689341
epoch 1752 start, epsilon: 0.001 time: 2020-06-29 15:40:17.655044
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1753] - Mean score over last 1 times:54.54576580689341
epoch 1753 start, epsilon: 0.001 time: 2020-06-29 15:40:21.144085
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1754] - Mean score over last 1 times:54.54576580689341
epoch 1754 start, epsilon: 0.001 time: 2020-06-29 15:40:24.587418
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1755] - Mean score over last 1 times:54.54576580689341
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epoch 1755 start, epsilon: 0.001 time: 2020-06-29 15:40:28.028193
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1756] - Mean score over last 1 times:54.54576580689341
epoch 1756 start, epsilon: 0.001 time: 2020-06-29 15:40:31.488478
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1757] - Mean score over last 1 times:54.54576580689341
epoch 1757 start, epsilon: 0.001 time: 2020-06-29 15:40:34.945935
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1758] - Mean score over last 1 times:54.54576580689341
epoch 1758 start, epsilon: 0.001 time: 2020-06-29 15:40:38.414365
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1759] - Mean score over last 1 times:54.54576580689341
epoch 1759 start, epsilon: 0.001 time: 2020-06-29 15:40:41.870973
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1760] - Mean score over last 1 times:54.54576580689341
epoch 1760 start, epsilon: 0.001 time: 2020-06-29 15:40:45.311727
부족분 점수: 36.63948968428762
추가분 점수: 0
기타 점수: 30.0
[Episode 1761] - Mean score over last 1 times:66.63948968428761
epoch 1761 start, epsilon: 0.001 time: 2020-06-29 15:40:48.772563
부족분 점수: 36.63948968428762
추가분 점수: 0
기타 점수: 30.0
[Episode 1762] - Mean score over last 1 times:66.63948968428761
epoch 1762 start, epsilon: 0.001 time: 2020-06-29 15:40:52.274120
부족분 점수: 36.63948968428762
추가분 점수: 0
기타 점수: 30.0
[Episode 1763] - Mean score over last 1 times:66.63948968428761
epoch 1763 start, epsilon: 0.001 time: 2020-06-29 15:40:55.719286
부족분 점수: 36.63948968428762
추가분 점수: 0
기타 점수: 30.0
[Episode 1764] - Mean score over last 1 times:66.63948968428761
epoch 1764 start, epsilon: 0.001 time: 2020-06-29 15:40:59.162859
부족분 점수: 36.63948968428762
추가분 점수: 0
기타 점수: 30.0
[Episode 1765] - Mean score over last 1 times:66.63948968428761
epoch 1765 start, epsilon: 0.001 time: 2020-06-29 15:41:02.633942
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부족분 점수: 36.63948968428762
추가분 점수: 0
기타 점수: 30.0
[Episode 1766] - Mean score over last 1 times:66.63948968428761
epoch 1766 start, epsilon: 0.001 time: 2020-06-29 15:41:06.123743
부족분 점수: 36.63948968428762
추가분 점수: 0
기타 점수: 30.0
[Episode 1767] - Mean score over last 1 times:66.63948968428761
epoch 1767 start, epsilon: 0.001 time: 2020-06-29 15:41:09.586728
부족분 점수: 36.641308378311706
추가분 점수: 0
기타 점수: 30.0
[Episode 1768] - Mean score over last 1 times:66.6413083783117
epoch 1768 start, epsilon: 0.001 time: 2020-06-29 15:41:13.049206
부족분 점수: 36.641308378311706
추가분 점수: 0
기타 점수: 30.0
[Episode 1769] - Mean score over last 1 times:66.6413083783117
epoch 1769 start, epsilon: 0.001 time: 2020-06-29 15:41:16.483026
부족분 점수: 36.641308378311706
추가분 점수: 0
기타 점수: 30.0
[Episode 1770] - Mean score over last 1 times:66.6413083783117
epoch 1770 start, epsilon: 0.001 time: 2020-06-29 15:41:19.972836
부족분 점수: 36.641308378311706
추가분 점수: 0
기타 점수: 30.0
[Episode 1771] - Mean score over last 1 times:66.6413083783117
epoch 1771 start, epsilon: 0.001 time: 2020-06-29 15:41:23.445925
부족분 점수: 36.582609414260716
추가분 점수: 0
기타 점수: 30.0
[Episode 1772] - Mean score over last 1 times:66.58260941426072
epoch 1772 start, epsilon: 0.001 time: 2020-06-29 15:41:26.913131
부족분 점수: 36.641308378311706
추가분 점수: 0
기타 점수: 30.0
[Episode 1773] - Mean score over last 1 times:66.6413083783117
epoch 1773 start, epsilon: 0.001 time: 2020-06-29 15:41:30.376304
부족분 점수: 36.641308378311706
추가분 점수: 0
기타 점수: 30.0
[Episode 1774] - Mean score over last 1 times:66.6413083783117
epoch 1774 start, epsilon: 0.001 time: 2020-06-29 15:41:33.843673
부족분 점수: 38.915617512671716
추가분 점수: 0
기타 점수: 30.0
[Episode 1775] - Mean score over last 1 times:68.91561751267172
epoch 1775 start, epsilon: 0.001 time: 2020-06-29 15:41:37.296530
부족분 점수: 36.6390350107816
```

2020. 6. 29. Untitled - Jupyter Notebook 추가분 점수: 0 기타 점수: 30.0 [Episode 1776] - Mean score over last 1 times:66.6390350107816 epoch 1776 start, epsilon: 0.001 time: 2020-06-29 15:41:40.738826 부족분 점수: 36.641308378311706 추가분 점수: 0 기타 점수: 30.0 [Episode 1777] - Mean score over last 1 times:66.6413083783117 epoch 1777 start, epsilon: 0.001 time: 2020-06-29 15:41:44.160009 부족분 점수: 36.641308378311706 추가분 점수: 0 기타 점수: 30.0 [Episode 1778] - Mean score over last 1 times:66.6413083783117 epoch 1778 start, epsilon: 0.001 time: 2020-06-29 15:41:47.597089 부족분 점수: 36.58033604673061 추가분 점수: 0 기타 점수: 30.0 [Episode 1779] - Mean score over last 1 times:66.58033604673061 epoch 1779 start, epsilon: 0.001 time: 2020-06-29 15:41:51.025497 부족분 점수: 39.20571149798638 추가분 점수: 0 기타 점수: 30.0 [Episode 1780] - Mean score over last 1 times:69.20571149798639 epoch 1780 start, epsilon: 0.001 time: 2020-06-29 15:41:54.476090 부족분 점수: 36.641308378311706 추가분 점수: 0 기타 점수: 30.0 [Episode 1781] - Mean score over last 1 times:66.6413083783117 epoch 1781 start, epsilon: 0.001 time: 2020-06-29 15:41:57.895562 부족분 점수: 36.641308378311706 추가분 점수: 0 기타 점수: 30.0 [Episode 1782] - Mean score over last 1 times:66.6413083783117 epoch 1782 start, epsilon: 0.001 time: 2020-06-29 15:42:01.335939 부족분 점수: 36.65107464233631 추가분 점수: 0 기타 점수: 30.0 [Episode 1783] - Mean score over last 1 times:66.65107464233631 epoch 1783 start, epsilon: 0.001 time: 2020-06-29 15:42:04.780343 부족분 점수: 36.641308378311706 추가분 점수: 0 기타 점수: 30.0 [Episode 1784] - Mean score over last 1 times:66.6413083783117 epoch 1784 start, epsilon: 0.001 time: 2020-06-29 15:42:08.340519 부족분 점수: 36.641308378311706 추가분 점수: 0 기타 점수: 30.0 [Episode 1785] - Mean score over last 1 times:66.6413083783117 epoch 1785 start, epsilon: 0.001 time: 2020-06-29 15:42:11.775203 부족분 점수: 39.056123914505406

localhost:8888/notebooks/competitions-master/process optimization/DQN/process optimization/Untitled.ipynb

추가분 점수: 0

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기타 점수: 30.0
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[Episode 1786] - Mean score over last 1 times:69.0561239145054

epoch 1786 start, epsilon: 0.001 time: 2020-06-29 15:42:15.217034

부족분 점수: 36.641308378311706

추가분 점수: 0 기타 점수: 30.0

[Episode 1787] - Mean score over last 1 times:66.6413083783117

epoch 1787 start, epsilon: 0.001 time: 2020-06-29 15:42:18.701448

부족분 점수: 36.641308378311706 추가분 점수: 3.078256990681958

기타 점수: 30.0

[Episode 1788] - Mean score over last 1 times:69.71956536899367

epoch 1788 start, epsilon: 0.001 time: 2020-06-29 15:42:22.188002

부족분 점수: 36.641308378311706 추가분 점수: 3.046788668676037

기타 점수: 30.0

[Episode 1789] - Mean score over last 1 times:69.68809704698774

epoch 1789 start, epsilon: 0.001 time: 2020-06-29 15:42:25.588268

부족분 점수: 36.641308378311706 추가분 점수: 3.036887231446941

기타 점수: 30.0

[Episode 1790] - Mean score over last 1 times:69.67819560975865

epoch 1790 start, epsilon: 0.001 time: 2020-06-29 15:42:29.060734

부족분 점수: 36.641308378311706 추가분 점수: 3.0708451981101548

기타 점수: 30.0

[Episode 1791] - Mean score over last 1 times:69.71215357642185

epoch 1791 start, epsilon: 0.001 time: 2020-06-29 15:42:32.539623

부족분 점수: 33.2872909845924 추가분 점수: 5.280893298266127

기타 점수: 30.0

[Episode 1792] - Mean score over last 1 times:68.56818428285854

epoch 1792 start, epsilon: 0.001 time: 2020-06-29 15:42:35.942995

부족분 점수: 33.28858127427166 추가분 점수: 5.298849829635682

기타 점수: 30.0

[Episode 1793] - Mean score over last 1 times:68.58743110390733

epoch 1793 start, epsilon: 0.001 time: 2020-06-29 15:42:39.415428

부족분 점수: 33.2872909845924 추가분 점수: 5.280893298266127

기타 점수: 30.0

[Episode 1794] - Mean score over last 1 times:68.56818428285854

epoch 1794 start, epsilon: 0.001 time: 2020-06-29 15:42:42.858742

부족분 점수: 33.2872909845924 추가분 점수: 6.032377669017963

기타 점수: 30.0

[Episode 1795] - Mean score over last 1 times:69.31966865361036

epoch 1795 start, epsilon: 0.001 time: 2020-06-29 15:42:46.305511

부족분 점수: 33.19667885580798 추가분 점수: 8.845157558194368

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기타 점수: 30.0
[Episode 1796] - Mean score over last 1 times:72.04183641400235
epoch 1796 start, epsilon: 0.001 time: 2020-06-29 15:42:49.756021
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1797] - Mean score over last 1 times:54.54576580689341
epoch 1797 start, epsilon: 0.001 time: 2020-06-29 15:42:53.192171
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1798] - Mean score over last 1 times:54.54576580689341
epoch 1798 start, epsilon: 0.001 time: 2020-06-29 15:42:56.628666
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1799] - Mean score over last 1 times:54.54576580689341
epoch 1799 start, epsilon: 0.001 time: 2020-06-29 15:43:00.094587
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1800] - Mean score over last 1 times:54.54576580689341
epoch 1800 start, epsilon: 0.001 time: 2020-06-29 15:43:03.540590
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1801] - Mean score over last 1 times:54.54576580689341
epoch 1801 start, epsilon: 0.001 time: 2020-06-29 15:43:07.020649
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1802] - Mean score over last 1 times:54.54576580689341
epoch 1802 start, epsilon: 0.001 time: 2020-06-29 15:43:10.500558
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1803] - Mean score over last 1 times:54.54576580689341
epoch 1803 start, epsilon: 0.001 time: 2020-06-29 15:43:13.989381
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1804] - Mean score over last 1 times:54.54576580689341
epoch 1804 start, epsilon: 0.001 time: 2020-06-29 15:43:17.587457
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1805] - Mean score over last 1 times:54.54576580689341
epoch 1805 start, epsilon: 0.001 time: 2020-06-29 15:43:21.092384
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
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[Episode 1806] - Mean score over last 1 times:54.54576580689341
epoch 1806 start, epsilon: 0.001 time: 2020-06-29 15:43:24.520887
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1807] - Mean score over last 1 times:54.54576580689341
epoch 1807 start, epsilon: 0.001 time: 2020-06-29 15:43:28.042926
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1808] - Mean score over last 1 times:54.54576580689341
epoch 1808 start, epsilon: 0.001 time: 2020-06-29 15:43:31.594245
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1809] - Mean score over last 1 times:54.54576580689341
epoch 1809 start, epsilon: 0.001 time: 2020-06-29 15:43:35.131118
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1810] - Mean score over last 1 times:54.54576580689341
epoch 1810 start, epsilon: 0.001 time: 2020-06-29 15:43:38.565498
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1811] - Mean score over last 1 times:54.54576580689341
epoch 1811 start, epsilon: 0.001 time: 2020-06-29 15:43:42.042829
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1812] - Mean score over last 1 times:54.54576580689341
epoch 1812 start, epsilon: 0.001 time: 2020-06-29 15:43:45.538656
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1813] - Mean score over last 1 times:54.54576580689341
epoch 1813 start, epsilon: 0.001 time: 2020-06-29 15:43:48.998514
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1814] - Mean score over last 1 times:54.54576580689341
epoch 1814 start, epsilon: 0.001 time: 2020-06-29 15:43:52.443145
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1815] - Mean score over last 1 times:54.54576580689341
epoch 1815 start, epsilon: 0.001 time: 2020-06-29 15:43:55.880416
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1816] - Mean score over last 1 times:54.54576580689341
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epoch 1816 start, epsilon: 0.001 time: 2020-06-29 15:43:59.421672
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1817] - Mean score over last 1 times:54.54576580689341
epoch 1817 start, epsilon: 0.001 time: 2020-06-29 15:44:02.877071
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1818] - Mean score over last 1 times:54.54576580689341
epoch 1818 start, epsilon: 0.001 time: 2020-06-29 15:44:06.362901
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1819] - Mean score over last 1 times:54.54576580689341
epoch 1819 start, epsilon: 0.001 time: 2020-06-29 15:44:09.867464
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1820] - Mean score over last 1 times:54.54576580689341
epoch 1820 start, epsilon: 0.001 time: 2020-06-29 15:44:13.292703
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1821] - Mean score over last 1 times:54.54576580689341
epoch 1821 start, epsilon: 0.001 time: 2020-06-29 15:44:16.737244
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1822] - Mean score over last 1 times:54.54576580689341
epoch 1822 start, epsilon: 0.001 time: 2020-06-29 15:44:20.182231
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1823] - Mean score over last 1 times:54.54576580689341
epoch 1823 start, epsilon: 0.001 time: 2020-06-29 15:44:23.691603
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1824] - Mean score over last 1 times:54.54576580689341
epoch 1824 start, epsilon: 0.001 time: 2020-06-29 15:44:27.145453
부족분 점수: 32.987636567178164
추가분 점수: 5.547826583838262
기타 점수: 30.0
[Episode 1825] - Mean score over last 1 times:68.53546315101643
epoch 1825 start, epsilon: 0.001 time: 2020-06-29 15:44:30.594037
부족분 점수: 32.96807024582783
추가분 점수: 5.540786517578815
기타 점수: 30.0
[Episode 1826] - Mean score over last 1 times:68.50885676340664
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epoch 1826 start, epsilon: 0.001 time: 2020-06-29 15:44:34.114344
부족분 점수: 32.96807024582783
추가분 점수: 5.539351223916564
기타 점수: 30.0
[Episode 1827] - Mean score over last 1 times:68.5074214697444
epoch 1827 start, epsilon: 0.001 time: 2020-06-29 15:44:37.539759
부족분 점수: 32.96807024582783
추가분 점수: 5.5350305967620494
기타 점수: 30.0
[Episode 1828] - Mean score over last 1 times:68.50310084258987
epoch 1828 start, epsilon: 0.001 time: 2020-06-29 15:44:40.998769
부족분 점수: 32.96807024582783
추가분 점수: 5.539351223916564
기타 점수: 30.0
[Episode 1829] - Mean score over last 1 times:68.5074214697444
epoch 1829 start, epsilon: 0.001 time: 2020-06-29 15:44:44.467254
부족분 점수: 32.769439366062244
추가분 점수: 6.293156887243736
기타 점수: 30.0
[Episode 1830] - Mean score over last 1 times:69.06259625330598
epoch 1830 start, epsilon: 0.001 time: 2020-06-29 15:44:47.906166
부족분 점수: 41.85414319696303
추가분 점수: 5.502954609759567
기타 점수: 30.0
[Episode 1831] - Mean score over last 1 times:77.3570978067226
epoch 1831 start, epsilon: 0.001 time: 2020-06-29 15:44:51.355421
부족분 점수: 36.641308378311706
추가분 점수: 0
기타 점수: 30.0
[Episode 1832] - Mean score over last 1 times:66.6413083783117
epoch 1832 start, epsilon: 0.001 time: 2020-06-29 15:44:54.828640
부족분 점수: 36.641308378311706
추가분 점수: 0
기타 점수: 30.0
[Episode 1833] - Mean score over last 1 times:66.6413083783117
epoch 1833 start, epsilon: 0.001 time: 2020-06-29 15:44:58.245906
부족분 점수: 36.64267239882977
추가분 점수: 0
기타 점수: 30.0
[Episode 1834] - Mean score over last 1 times:66.64267239882977
epoch 1834 start, epsilon: 0.001 time: 2020-06-29 15:45:01.735991
부족분 점수: 36.64267239882977
추가분 점수: 0
기타 점수: 30.0
[Episode 1835] - Mean score over last 1 times:66.64267239882977
epoch 1835 start, epsilon: 0.001 time: 2020-06-29 15:45:05.217376
부족분 점수: 36.64267239882977
추가분 점수: 0
기타 점수: 30.0
[Episode 1836] - Mean score over last 1 times:66.64267239882977
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epoch 1836 start, epsilon: 0.001 time: 2020-06-29 15:45:08.655067
부족분 점수: 36.64267239882977
추가분 점수: 0
기타 점수: 30.0
[Episode 1837] - Mean score over last 1 times:66.64267239882977
epoch 1837 start, epsilon: 0.001 time: 2020-06-29 15:45:12.094663
부족분 점수: 36.63287234150404
추가분 점수: 0
기타 점수: 30.0
[Episode 1838] - Mean score over last 1 times:66.63287234150404
epoch 1838 start, epsilon: 0.001 time: 2020-06-29 15:45:15.540215
부족분 점수: 36.64267239882977
추가분 점수: 0
기타 점수: 30.0
[Episode 1839] - Mean score over last 1 times:66.64267239882977
epoch 1839 start, epsilon: 0.001 time: 2020-06-29 15:45:18.983862
부족분 점수: 36.64267239882977
추가분 점수: 0
기타 점수: 30.0
[Episode 1840] - Mean score over last 1 times:66.64267239882977
epoch 1840 start, epsilon: 0.001 time: 2020-06-29 15:45:22.456690
부족분 점수: 36.64267239882977
추가분 점수: 0
기타 점수: 30.0
[Episode 1841] - Mean score over last 1 times:66.64267239882977
epoch 1841 start, epsilon: 0.001 time: 2020-06-29 15:45:25.869597
부족분 점수: 36.64267239882977
추가분 점수: 0
기타 점수: 30.0
[Episode 1842] - Mean score over last 1 times:66.64267239882977
epoch 1842 start, epsilon: 0.001 time: 2020-06-29 15:45:29.344099
부족분 점수: 36.64267239882977
추가분 점수: 0
기타 점수: 30.0
[Episode 1843] - Mean score over last 1 times:66.64267239882977
epoch 1843 start, epsilon: 0.001 time: 2020-06-29 15:45:32.831871
부족분 점수: 36.65243866285437
추가분 점수: 0
기타 점수: 30.0
[Episode 1844] - Mean score over last 1 times:66.65243866285437
epoch 1844 start, epsilon: 0.001 time: 2020-06-29 15:45:36.319166
부족분 점수: 36.64267239882977
추가분 점수: 0
기타 점수: 30.0
[Episode 1845] - Mean score over last 1 times:66.64267239882977
epoch 1845 start, epsilon: 0.001 time: 2020-06-29 15:45:39.746391
부족분 점수: 36.64267239882977
추가분 점수: 0
기타 점수: 30.0
[Episode 1846] - Mean score over last 1 times:66.64267239882977
epoch 1846 start, epsilon: 0.001 time: 2020-06-29 15:45:43.276273
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부족분 점수: 36.64267239882977
추가분 점수: 0
기타 점수: 30.0
[Episode 1847] - Mean score over last 1 times:66.64267239882977
epoch 1847 start, epsilon: 0.001 time: 2020-06-29 15:45:46.732929
부족분 점수: 36.64267239882977
추가분 점수: 0
기타 점수: 30.0
[Episode 1848] - Mean score over last 1 times:66.64267239882977
epoch 1848 start, epsilon: 0.001 time: 2020-06-29 15:45:50.143142
부족분 점수: 36.64267239882977
추가분 점수: 0
기타 점수: 30.0
[Episode 1849] - Mean score over last 1 times:66.64267239882977
epoch 1849 start, epsilon: 0.001 time: 2020-06-29 15:45:53.601674
부족분 점수: 36.64267239882977
추가분 점수: 0
기타 점수: 30.0
[Episode 1850] - Mean score over last 1 times:66.64267239882977
epoch 1850 start, epsilon: 0.001 time: 2020-06-29 15:45:57.033735
부족분 점수: 36.64267239882977
추가분 점수: 0
기타 점수: 30.0
[Episode 1851] - Mean score over last 1 times:66.64267239882977
epoch 1851 start, epsilon: 0.001 time: 2020-06-29 15:46:00.534436
부족분 점수: 36.64267239882977
추가분 점수: 0
기타 점수: 30.0
[Episode 1852] - Mean score over last 1 times:66.64267239882977
epoch 1852 start, epsilon: 0.001 time: 2020-06-29 15:46:03.972310
부족분 점수: 36.64267239882977
추가분 점수: 0
기타 점수: 30.0
[Episode 1853] - Mean score over last 1 times:66.64267239882977
epoch 1853 start, epsilon: 0.001 time: 2020-06-29 15:46:07.525215
부족분 점수: 36.64267239882977
추가분 점수: 0
기타 점수: 30.0
[Episode 1854] - Mean score over last 1 times:66.64267239882977
epoch 1854 start, epsilon: 0.001 time: 2020-06-29 15:46:11.024972
부족분 점수: 36.64267239882977
추가분 점수: 0
기타 점수: 30.0
[Episode 1855] - Mean score over last 1 times:66.64267239882977
epoch 1855 start, epsilon: 0.001 time: 2020-06-29 15:46:14.473761
부족분 점수: 36.64267239882977
추가분 점수: 0
기타 점수: 30.0
[Episode 1856] - Mean score over last 1 times:66.64267239882977
epoch 1856 start, epsilon: 0.001 time: 2020-06-29 15:46:17.916138
부족분 점수: 36.64267239882977
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추가분 점수: 0
기타 점수: 30.0
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[Episode 1857] - Mean score over last 1 times:66.64267239882977

epoch 1857 start, epsilon: 0.001 time: 2020-06-29 15:46:21.398708

부족분 점수: 36.64267239882977

추가분 점수: 0 기타 점수: 30.0

[Episode 1858] - Mean score over last 1 times:66.64267239882977

epoch 1858 start, epsilon: 0.001 time: 2020-06-29 15:46:24.879803

부족분 점수: 36.64267239882977

추가분 점수: 0 기타 점수: 30.0

[Episode 1859] - Mean score over last 1 times:66.64267239882977

epoch 1859 start, epsilon: 0.001 time: 2020-06-29 15:46:28.305243

부족분 점수: 36.64267239882977

추가분 점수: 0 기타 점수: 30.0

[Episode 1860] - Mean score over last 1 times:66.64267239882977

epoch 1860 start, epsilon: 0.001 time: 2020-06-29 15:46:31.807639

부족분 점수: 36.64267239882977

추가분 점수: 0 기타 점수: 30.0

[Episode 1861] - Mean score over last 1 times:66.64267239882977

epoch 1861 start, epsilon: 0.001 time: 2020-06-29 15:46:35.294425

부족분 점수: 36.86546241678016

추가분 점수: 0 기타 점수: 30.0

[Episode 1862] - Mean score over last 1 times:66.86546241678016

epoch 1862 start, epsilon: 0.001 time: 2020-06-29 15:46:38.678761

부족분 점수: 39.529442106391755 추가분 점수: 0.21404431161970328

기타 점수: 30.0

[Episode 1863] - Mean score over last 1 times:69.74348641801146

epoch 1863 start, epsilon: 0.001 time: 2020-06-29 15:46:42.121816

부족분 점수: 36.86546241678016

추가분 점수: 0 기타 점수: 30.0

[Episode 1864] - Mean score over last 1 times:66.86546241678016

epoch 1864 start, epsilon: 0.001 time: 2020-06-29 15:46:45.626036

부족분 점수: 36.86909980482832

추가분 점수: 0 기타 점수: 30.0

[Episode 1865] - Mean score over last 1 times:66.86909980482832

epoch 1865 start, epsilon: 0.001 time: 2020-06-29 15:46:49.082238

부족분 점수: 36.86546241678016

추가분 점수: 0 기타 점수: 30.0

[Episode 1866] - Mean score over last 1 times:66.86546241678016

epoch 1866 start, epsilon: 0.001 time: 2020-06-29 15:46:52.555641

부족분 점수: 36.78723092467995

추가분 점수: 0

기타 점수: 30.0 [Episode 1867] - Mean score over last 1 times:66.78723092467996 epoch 1867 start, epsilon: 0.001 time: 2020-06-29 15:46:55.997087 부족분 점수: 36.86546241678016 추가분 점수: 0 기타 점수: 30.0 [Episode 1868] - Mean score over last 1 times:66.86546241678016 epoch 1868 start, epsilon: 0.001 time: 2020-06-29 15:46:59.430511 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1869] - Mean score over last 1 times:54.54576580689341 epoch 1869 start, epsilon: 0.001 time: 2020-06-29 15:47:02.871624 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1870] - Mean score over last 1 times:54.54576580689341 epoch 1870 start. epsilon: 0.001 time: 2020-06-29 15:47:06.352519 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1871] - Mean score over last 1 times:54.54576580689341 epoch 1871 start, epsilon: 0.001 time: 2020-06-29 15:47:09.925340 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1872] - Mean score over last 1 times:54.54576580689341 epoch 1872 start, epsilon: 0.001 time: 2020-06-29 15:47:13.360864 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1873] - Mean score over last 1 times:54.54576580689341 epoch 1873 start, epsilon: 0.001 time: 2020-06-29 15:47:16.809769 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1874] - Mean score over last 1 times:54.54576580689341 epoch 1874 start, epsilon: 0.001 time: 2020-06-29 15:47:20.252169 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1875] - Mean score over last 1 times:54.54576580689341 epoch 1875 start, epsilon: 0.001 time: 2020-06-29 15:47:23.693239 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1876] - Mean score over last 1 times:54.54576580689341 epoch 1876 start, epsilon: 0.001 time: 2020-06-29 15:47:27.190801 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0

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[Episode 1877] - Mean score over last 1 times:54.54576580689341
epoch 1877 start, epsilon: 0.001 time: 2020-06-29 15:47:30.671189
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1878] - Mean score over last 1 times:54.54576580689341
epoch 1878 start, epsilon: 0.001 time: 2020-06-29 15:47:34.123682
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1879] - Mean score over last 1 times:54.54576580689341
epoch 1879 start, epsilon: 0.001 time: 2020-06-29 15:47:37.541119
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1880] - Mean score over last 1 times:54.54576580689341
epoch 1880 start, epsilon: 0.001 time: 2020-06-29 15:47:40.998245
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1881] - Mean score over last 1 times:54.54576580689341
epoch 1881 start, epsilon: 0.001 time: 2020-06-29 15:47:44.471304
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1882] - Mean score over last 1 times:54.54576580689341
epoch 1882 start, epsilon: 0.001 time: 2020-06-29 15:47:47.922550
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1883] - Mean score over last 1 times:54.54576580689341
epoch 1883 start, epsilon: 0.001 time: 2020-06-29 15:47:51.374351
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1884] - Mean score over last 1 times:54.54576580689341
epoch 1884 start, epsilon: 0.001 time: 2020-06-29 15:47:54.823930
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1885] - Mean score over last 1 times:54.54576580689341
epoch 1885 start, epsilon: 0.001 time: 2020-06-29 15:47:58.596600
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1886] - Mean score over last 1 times:54.54576580689341
epoch 1886 start, epsilon: 0.001 time: 2020-06-29 15:48:02.314081
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
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[Episode 1887] - Mean score over last 1 times:54.54576580689341
epoch 1887 start, epsilon: 0.001 time: 2020-06-29 15:48:06.154668
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1888] - Mean score over last 1 times:54.54576580689341
epoch 1888 start, epsilon: 0.001 time: 2020-06-29 15:48:09.883900
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1889] - Mean score over last 1 times:54.54576580689341
epoch 1889 start, epsilon: 0.001 time: 2020-06-29 15:48:13.398785
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1890] - Mean score over last 1 times:54.54576580689341
epoch 1890 start, epsilon: 0.001 time: 2020-06-29 15:48:16.870949
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1891] - Mean score over last 1 times:54.54576580689341
epoch 1891 start, epsilon: 0.001 time: 2020-06-29 15:48:20.334886
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1892] - Mean score over last 1 times:54.54576580689341
epoch 1892 start, epsilon: 0.001 time: 2020-06-29 15:48:23.819107
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1893] - Mean score over last 1 times:54.54576580689341
epoch 1893 start, epsilon: 0.001 time: 2020-06-29 15:48:27.269971
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1894] - Mean score over last 1 times:54.54576580689341
epoch 1894 start, epsilon: 0.001 time: 2020-06-29 15:48:30.742133
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1895] - Mean score over last 1 times:54.54576580689341
epoch 1895 start, epsilon: 0.001 time: 2020-06-29 15:48:34.188827
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1896] - Mean score over last 1 times:54.54576580689341
epoch 1896 start, epsilon: 0.001 time: 2020-06-29 15:48:37.695406
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1897] - Mean score over last 1 times:54.54576580689341
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epoch 1897 start, epsilon: 0.001 time: 2020-06-29 15:48:41.088241
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1898] - Mean score over last 1 times:54.54576580689341
epoch 1898 start, epsilon: 0.001 time: 2020-06-29 15:48:44.556663
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1899] - Mean score over last 1 times:54.54576580689341
epoch 1899 start, epsilon: 0.001 time: 2020-06-29 15:48:48.007405
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1900] - Mean score over last 1 times:54.54576580689341
epoch 1900 start, epsilon: 0.001 time: 2020-06-29 15:48:51.529755
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1901] - Mean score over last 1 times:54.54576580689341
epoch 1901 start, epsilon: 0.001 time: 2020-06-29 15:48:54.947819
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1902] - Mean score over last 1 times:54.54576580689341
epoch 1902 start, epsilon: 0.001 time: 2020-06-29 15:48:58.396035
부족분 점수: 41.50449773477358
추가분 점수: 8.216172675166808
기타 점수: 30.0
[Episode 1903] - Mean score over last 1 times:79.7206704099404
epoch 1903 start, epsilon: 0.001 time: 2020-06-29 15:49:01.883874
부족분 점수: 41.47040029394028
추가분 점수: 8.230936661215704
기타 점수: 30.0
[Episode 1904] - Mean score over last 1 times:79.70133695515598
epoch 1904 start, epsilon: 0.001 time: 2020-06-29 15:49:05.315565
부족분 점수: 41.80770812910147
추가분 점수: 5.9206324385584015
기타 점수: 30.0
[Episode 1905] - Mean score over last 1 times:77.72834056765987
epoch 1905 start, epsilon: 0.001 time: 2020-06-29 15:49:08.782718
부족분 점수: 41.80770812910147
추가분 점수: 5.382197627525933
기타 점수: 30.0
[Episode 1906] - Mean score over last 1 times:77.18990575662741
epoch 1906 start, epsilon: 0.001 time: 2020-06-29 15:49:12.242702
부족분 점수: 41.80770812910147
추가분 점수: 5.391168212915001
기타 점수: 30.0
[Episode 1907] - Mean score over last 1 times:77.19887634201646
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epoch 1907 start, epsilon: 0.001 time: 2020-06-29 15:49:15.803265
부족분 점수: 41.88291665681029
추가분 점수: 5.178671020063083
기타 점수: 30.0
[Episode 1908] - Mean score over last 1 times:77.06158767687337
epoch 1908 start, epsilon: 0.001 time: 2020-06-29 15:49:19.267947
부족분 점수: 36.641308378311706
추가분 점수: 0
기타 점수: 30.0
[Episode 1909] - Mean score over last 1 times:66.6413083783117
epoch 1909 start, epsilon: 0.001 time: 2020-06-29 15:49:22.833975
부족분 점수: 36.641308378311706
추가분 점수: 0
기타 점수: 30.0
[Episode 1910] - Mean score over last 1 times:66.6413083783117
epoch 1910 start, epsilon: 0.001 time: 2020-06-29 15:49:26.211942
부족분 점수: 36.641308378311706
추가분 점수: 0
기타 점수: 30.0
[Episode 1911] - Mean score over last 1 times:66.6413083783117
epoch 1911 start, epsilon: 0.001 time: 2020-06-29 15:49:29.687132
부족분 점수: 36.641308378311706
추가분 점수: 0
기타 점수: 30.0
[Episode 1912] - Mean score over last 1 times:66.6413083783117
epoch 1912 start, epsilon: 0.001 time: 2020-06-29 15:49:33.150914
부족분 점수: 35.994715034916155
추가분 점수: 0.24102549766012116
기타 점수: 30.0
[Episode 1913] - Mean score over last 1 times:66.23574053257627
epoch 1913 start, epsilon: 0.001 time: 2020-06-29 15:49:36.780028
부족분 점수: 36.641308378311706
추가분 점수: 0
기타 점수: 30.0
[Episode 1914] - Mean score over last 1 times:66.6413083783117
epoch 1914 start, epsilon: 0.001 time: 2020-06-29 15:49:40.240728
부족분 점수: 36.641308378311706
추가분 점수: 0
기타 점수: 30.0
[Episode 1915] - Mean score over last 1 times:66.6413083783117
epoch 1915 start, epsilon: 0.001 time: 2020-06-29 15:49:43.682854
부족분 점수: 36.641308378311706
추가분 점수: 0
기타 점수: 30.0
[Episode 1916] - Mean score over last 1 times:66.6413083783117
epoch 1916 start, epsilon: 0.001 time: 2020-06-29 15:49:47.165842
부족분 점수: 36.641308378311706
추가분 점수: 0
기타 점수: 30.0
[Episode 1917] - Mean score over last 1 times:66.6413083783117
epoch 1917 start, epsilon: 0.001 time: 2020-06-29 15:49:50.571677
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부족분 점수: 36.641308378311706
추가분 점수: 0
기타 점수: 30.0
[Episode 1918] - Mean score over last 1 times:66.6413083783117
epoch 1918 start, epsilon: 0.001 time: 2020-06-29 15:49:54.019292
부족분 점수: 36.563076886211505
추가분 점수: 0
기타 점수: 30.0
[Episode 1919] - Mean score over last 1 times:66.5630768862115
epoch 1919 start, epsilon: 0.001 time: 2020-06-29 15:49:57.492568
부족분 점수: 35.900953984890705
추가분 점수: 0
기타 점수: 30.0
[Episode 1920] - Mean score over last 1 times:65.9009539848907
epoch 1920 start, epsilon: 0.001 time: 2020-06-29 15:50:00.993420
부족분 점수: 35.900953984890705
추가분 점수: 0
기타 점수: 30.0
[Episode 1921] - Mean score over last 1 times:65.9009539848907
epoch 1921 start, epsilon: 0.001 time: 2020-06-29 15:50:04.442628
부족분 점수: 35.900953984890705
추가분 점수: 0
기타 점수: 30.0
[Episode 1922] - Mean score over last 1 times:65.9009539848907
epoch 1922 start, epsilon: 0.001 time: 2020-06-29 15:50:08.026716
부족분 점수: 35.900953984890705
추가분 점수: 0
기타 점수: 30.0
[Episode 1923] - Mean score over last 1 times:65.9009539848907
epoch 1923 start, epsilon: 0.001 time: 2020-06-29 15:50:11.530119
부족분 점수: 35.900953984890705
추가분 점수: 0
기타 점수: 30.0
[Episode 1924] - Mean score over last 1 times:65.9009539848907
epoch 1924 start, epsilon: 0.001 time: 2020-06-29 15:50:15.007687
부족분 점수: 35.900953984890705
추가분 점수: 0
기타 점수: 30.0
[Episode 1925] - Mean score over last 1 times:65.9009539848907
epoch 1925 start, epsilon: 0.001 time: 2020-06-29 15:50:18.525529
부족분 점수: 35.900953984890705
추가분 점수: 0
기타 점수: 30.0
[Episode 1926] - Mean score over last 1 times:65.9009539848907
epoch 1926 start, epsilon: 0.001 time: 2020-06-29 15:50:22.022152
부족분 점수: 41.228060851290124
추가분 점수: 5.447921297244955
기타 점수: 30.0
[Episode 1927] - Mean score over last 1 times:76.67598214853507
epoch 1927 start, epsilon: 0.001 time: 2020-06-29 15:50:25.482069
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2020. 6. 29. 부족분 점수: 41.228060851290124 추가분 점수: 5.447921297244955 기타 점수: 30.0 [Episode 1928] - Mean score over last 1 times:76.67598214853507 epoch 1928 start, epsilon: 0.001 time: 2020-06-29 15:50:28.946091 부족분 점수: 41.231285039429096 추가분 점수: 5.447921297244955 기타 점수: 30.0 [Episode 1929] - Mean score over last 1 times:76.67920633667404 epoch 1929 start, epsilon: 0.001 time: 2020-06-29 15:50:32.443539 부족분 점수: 41.19568226063667 추가분 점수: 5.4447889654426636 기타 점수: 30.0 [Episode 1930] - Mean score over last 1 times:76.64047122607934 epoch 1930 start, epsilon: 0.001 time: 2020-06-29 15:50:35.845058 부족분 점수: 41.17504991424182 추가분 점수: 5.480438440433009 기타 점수: 30.0 epoch 1931 start, epsilon: 0.001 time: 2020-06-29 15:50:39.268830 부족분 점수: 41.17504991424182 추가분 점수: 5.489409025822076 기타 점수: 30.0 부족분 점수: 41.17504991424182 추가분 점수: 5.489409025822076 기타 점수: 30.0

[Episode 1931] - Mean score over last 1 times: 76.65548835467483

[Episode 1932] - Mean score over last 1 times: 76.6644589400639

epoch 1932 start, epsilon: 0.001 time: 2020-06-29 15:50:42.743598

[Episode 1933] - Mean score over last 1 times:76.6644589400639

epoch 1933 start, epsilon: 0.001 time: 2020-06-29 15:50:46.138094

부족분 점수: 41.17595926125386 추가분 점수: 5.475937787147056

기타 점수: 30.0

[Episode 1934] - Mean score over last 1 times:76.65189704840091

epoch 1934 start, epsilon: 0.001 time: 2020-06-29 15:50:49.587020

부족분 점수: 41.17504991424182 추가분 점수: 5.489409025822076

기타 점수: 30.0

[Episode 1935] - Mean score over last 1 times:76.6644589400639

epoch 1935 start, epsilon: 0.001 time: 2020-06-29 15:50:53.060300

부족분 점수: 41.517592638958824 추가분 점수: 5.09098231903764

기타 점수: 30.0

[Episode 1936] - Mean score over last 1 times: 76.60857495799647

epoch 1936 start, epsilon: 0.001 time: 2020-06-29 15:50:56.410015

부족분 점수: 35.82365027251225 추가분 점수: 3.9613908462549197

기타 점수: 30.0

[Episode 1937] - Mean score over last 1 times:69.78504111876717

epoch 1937 start, epsilon: 0.001 time: 2020-06-29 15:50:59.878292

부족분 점수: 35.82365027251225

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추가분 점수: 4.040362718861548
기타 점수: 30.0
[Episode 1938] - Mean score over last 1 times:69.8640129913738
epoch 1938 start, epsilon: 0.001 time: 2020-06-29 15:51:03.338300
부족분 점수: 35.82365027251225
추가분 점수: 4.590100467484239
기타 점수: 30.0
[Episode 1939] - Mean score over last 1 times:70.41375073999649
epoch 1939 start, epsilon: 0.001 time: 2020-06-29 15:51:06.840054
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1940] - Mean score over last 1 times:54.54576580689341
epoch 1940 start, epsilon: 0.001 time: 2020-06-29 15:51:10.279022
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1941] - Mean score over last 1 times:54.54576580689341
epoch 1941 start, epsilon: 0.001 time: 2020-06-29 15:51:13.752986
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1942] - Mean score over last 1 times:54.54576580689341
epoch 1942 start, epsilon: 0.001 time: 2020-06-29 15:51:17.243651
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1943] - Mean score over last 1 times:54.54576580689341
epoch 1943 start, epsilon: 0.001 time: 2020-06-29 15:51:20.722769
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1944] - Mean score over last 1 times:54.54576580689341
epoch 1944 start, epsilon: 0.001 time: 2020-06-29 15:51:24.179784
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1945] - Mean score over last 1 times:54.54576580689341
epoch 1945 start, epsilon: 0.001 time: 2020-06-29 15:51:27.617762
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1946] - Mean score over last 1 times:54.54576580689341
epoch 1946 start, epsilon: 0.001 time: 2020-06-29 15:51:31.062194
부족분 점수: 24.545765806893407
추가분 점수: 0.24644225661834218
기타 점수: 30.0
[Episode 1947] - Mean score over last 1 times:54.79220806351175
epoch 1947 start, epsilon: 0.001 time: 2020-06-29 15:51:34.520077
부족분 점수: 24.545765806893407
추가분 점수: 0
```

기타 점수: 30.0 [Episode 1948] - Mean score over last 1 times:54.54576580689341 epoch 1948 start, epsilon: 0.001 time: 2020-06-29 15:51:37.882153 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1949] - Mean score over last 1 times:54.54576580689341 epoch 1949 start, epsilon: 0.001 time: 2020-06-29 15:51:41.321382 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1950] - Mean score over last 1 times:54.54576580689341 epoch 1950 start, epsilon: 0.001 time: 2020-06-29 15:51:44.795852 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1951] - Mean score over last 1 times:54.54576580689341 epoch 1951 start, epsilon: 0.001 time: 2020-06-29 15:51:48.243597 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1952] - Mean score over last 1 times:54.54576580689341 epoch 1952 start, epsilon: 0.001 time: 2020-06-29 15:51:51.680664 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1953] - Mean score over last 1 times:54.54576580689341 epoch 1953 start, epsilon: 0.001 time: 2020-06-29 15:51:55.122806 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1954] - Mean score over last 1 times:54.54576580689341 epoch 1954 start, epsilon: 0.001 time: 2020-06-29 15:51:58.555160 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1955] - Mean score over last 1 times:54.54576580689341 epoch 1955 start, epsilon: 0.001 time: 2020-06-29 15:52:02.037634 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1956] - Mean score over last 1 times:54.54576580689341 epoch 1956 start, epsilon: 0.001 time: 2020-06-29 15:52:05.490685 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1957] - Mean score over last 1 times:54.54576580689341 epoch 1957 start, epsilon: 0.001 time: 2020-06-29 15:52:09.053912 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0

[Episode 1958] - Mean score over last 1 times:54.54576580689341 epoch 1958 start, epsilon: 0.001 time: 2020-06-29 15:52:12.587030 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1959] - Mean score over last 1 times:54.54576580689341 epoch 1959 start, epsilon: 0.001 time: 2020-06-29 15:52:16.025352 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1960] - Mean score over last 1 times:54.54576580689341 epoch 1960 start, epsilon: 0.001 time: 2020-06-29 15:52:19.528714 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1961] - Mean score over last 1 times:54.54576580689341 epoch 1961 start, epsilon: 0.001 time: 2020-06-29 15:52:22.943858 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1962] - Mean score over last 1 times:54.54576580689341 epoch 1962 start, epsilon: 0.001 time: 2020-06-29 15:52:26.430769 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1963] - Mean score over last 1 times:54.54576580689341 epoch 1963 start, epsilon: 0.001 time: 2020-06-29 15:52:29.834080 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1964] - Mean score over last 1 times:54.54576580689341 epoch 1964 start, epsilon: 0.001 time: 2020-06-29 15:52:33.248681 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1965] - Mean score over last 1 times:54.54576580689341 epoch 1965 start, epsilon: 0.001 time: 2020-06-29 15:52:36.687212 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1966] - Mean score over last 1 times:54.54576580689341 epoch 1966 start, epsilon: 0.001 time: 2020-06-29 15:52:40.160964 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1967] - Mean score over last 1 times:54.54576580689341 epoch 1967 start, epsilon: 0.001 time: 2020-06-29 15:52:43.603362 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0

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2020. 6. 29. [Episode 1968] - Mean score over last 1 times:54.54576580689341 epoch 1968 start, epsilon: 0.001 time: 2020-06-29 15:52:47.035940 부족분 점수: 24.545765806893407 추가분 점수: 0 기타 점수: 30.0 [Episode 1969] - Mean score over last 1 times:54.54576580689341 epoch 1969 start, epsilon: 0.001 time: 2020-06-29 15:52:50.485000 부족분 점수: 25.307807819339782 추가분 점수: 0 기타 점수: 30.0 [Episode 1970] - Mean score over last 1 times:55.307807819339786 epoch 1970 start, epsilon: 0.001 time: 2020-06-29 15:52:53.936692 부족분 점수: 25.307807819339782 추가분 점수: 0 기타 점수: 30.0 [Episode 1971] - Mean score over last 1 times:55.307807819339786 epoch 1971 start, epsilon: 0.001 time: 2020-06-29 15:52:57.408504 부족분 점수: 41.50963431654431 추가분 점수: 6.10145486305572 기타 점수: 30.0 [Episode 1972] - Mean score over last 1 times:77.61108917960003 epoch 1972 start, epsilon: 0.001 time: 2020-06-29 15:53:00.917992 부족분 점수: 41.482985226490385 추가분 점수: 6.1289079264645485 기타 점수: 30.0 [Episode 1973] - Mean score over last 1 times:77.61189315295493 epoch 1973 start, epsilon: 0.001 time: 2020-06-29 15:53:04.353317 부족분 점수: 41.482985226490385 추가분 점수: 6.014935410249141 기타 점수: 30.0 [Episode 1974] - Mean score over last 1 times:77.49792063673952 epoch 1974 start, epsilon: 0.001 time: 2020-06-29 15:53:07.806577 부족분 점수: 41.482985226490385 추가분 점수: 6.014935410249141 기타 점수: 30.0 [Episode 1975] - Mean score over last 1 times:77.49792063673952 epoch 1975 start, epsilon: 0.001 time: 2020-06-29 15:53:11.269113 부족분 점수: 41.48071185896028 추가분 점수: 6.786697604945864 기타 점수: 30.0 [Episode 1976] - Mean score over last 1 times:78.26740946390615 epoch 1976 start, epsilon: 0.001 time: 2020-06-29 15:53:14.695503 부족분 점수: 41.482985226490385 추가분 점수: 6.7777270195567985 기타 점수: 30.0 [Episode 1977] - Mean score over last 1 times:78.26071224604718 epoch 1977 start, epsilon: 0.001 time: 2020-06-29 15:53:18.174829 부족분 점수: 41.63489225927572 추가분 점수: 6.689376584252997 기타 점수: 30.0

[Episode 1978] - Mean score over last 1 times:78.32426884352873

```
epoch 1978 start, epsilon: 0.001 time: 2020-06-29 15:53:21.637577
부족분 점수: 41.773655233983284
추가분 점수: 6.4795515198844384
기타 점수: 30.0
[Episode 1979] - Mean score over last 1 times:78.25320675386772
epoch 1979 start, epsilon: 0.001 time: 2020-06-29 15:53:25.089054
부족분 점수: 41.78638609215187
추가분 점수: 6.4795515198844384
기타 점수: 30.0
[Episode 1980] - Mean score over last 1 times:78.26593761203631
epoch 1980 start, epsilon: 0.001 time: 2020-06-29 15:53:28.645403
부족분 점수: 41.766835131392966
추가분 점수: 6.481552083310933
기타 점수: 30.0
[Episode 1981] - Mean score over last 1 times: 78.2483872147039
epoch 1981 start, epsilon: 0.001 time: 2020-06-29 15:53:32.132180
부족분 점수: 41.780475336573595
추가분 점수: 6.478096564665172
기타 점수: 30.0
[Episode 1982] - Mean score over last 1 times: 78.25857190123877
epoch 1982 start, epsilon: 0.001 time: 2020-06-29 15:53:35.585370
부족분 점수: 41.773655233983284
추가분 점수: 6.4795515198844384
기타 점수: 30.0
[Episode 1983] - Mean score over last 1 times:78.25320675386772
epoch 1983 start, epsilon: 0.001 time: 2020-06-29 15:53:38.966121
부족분 점수: 42.19424358764431
추가분 점수: 6.4795515198844384
기타 점수: 30.0
[Episode 1984] - Mean score over last 1 times:78.67379510752875
epoch 1984 start, epsilon: 0.001 time: 2020-06-29 15:53:42.442228
부족분 점수: 41.88913308815781
추가분 점수: 6.225728191877136
기타 점수: 30.0
[Episode 1985] - Mean score over last 1 times:78.11486128003494
epoch 1985 start, epsilon: 0.001 time: 2020-06-29 15:53:45.897191
부족분 점수: 45.938840883627236
추가분 점수: 5.170665694238825
기타 점수: 30.0
[Episode 1986] - Mean score over last 1 times:81.10950657786606
epoch 1986 start, epsilon: 0.001 time: 2020-06-29 15:53:49.344387
부족분 점수: 41.87926237211156
추가분 점수: 6.320487065921208
기타 점수: 30.0
[Episode 1987] - Mean score over last 1 times:78.19974943803277
epoch 1987 start, epsilon: 0.001 time: 2020-06-29 15:53:52.853667
부족분 점수: 41.4009765649601
추가분 점수: 6.592561234229666
기타 점수: 30.0
[Episode 1988] - Mean score over last 1 times:77.99353779918977
```

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epoch 1988 start, epsilon: 0.001 time: 2020-06-29 15:53:56.321777
부족분 점수: 41.41982247457284
추가분 점수: 6.39118756726019
기타 점수: 30.0
[Episode 1989] - Mean score over last 1 times:77.81101004183303
epoch 1989 start, epsilon: 0.001 time: 2020-06-29 15:53:59.770575
부족분 점수: 41.41847688676449
추가분 점수: 6.408234137194045
기타 점수: 30.0
[Episode 1990] - Mean score over last 1 times:77.82671102395852
epoch 1990 start, epsilon: 0.001 time: 2020-06-29 15:54:03.200663
부족분 점수: 41.37906468129998
추가분 점수: 5.838128244348915
기타 점수: 30.0
[Episode 1991] - Mean score over last 1 times:77.2171929256489
epoch 1991 start, epsilon: 0.001 time: 2020-06-29 15:54:06.707361
부족분 점수: 35.920025695197324
추가분 점수: 4.162402003266889
기타 점수: 30.0
[Episode 1992] - Mean score over last 1 times:70.08242769846422
epoch 1992 start, epsilon: 0.001 time: 2020-06-29 15:54:10.172724
부족분 점수: 35.898680617360604
추가분 점수: 4.1747267273983475
기타 점수: 30.0
[Episode 1993] - Mean score over last 1 times:70.07340734475895
epoch 1993 start, epsilon: 0.001 time: 2020-06-29 15:54:13.612209
부족분 점수: 35.88201130355201
추가분 점수: 4.590235026265075
기타 점수: 30.0
[Episode 1994] - Mean score over last 1 times:70.4722463298171
epoch 1994 start, epsilon: 0.001 time: 2020-06-29 15:54:17.069828
부족분 점수: 35.899135290866624
추가분 점수: 0.026967668719968252
기타 점수: 30.0
[Episode 1995] - Mean score over last 1 times:65.92610295958659
epoch 1995 start, epsilon: 0.001 time: 2020-06-29 15:54:20.540651
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1996] - Mean score over last 1 times:54.54576580689341
epoch 1996 start, epsilon: 0.001 time: 2020-06-29 15:54:23.975753
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1997] - Mean score over last 1 times:54.54576580689341
epoch 1997 start, epsilon: 0.001 time: 2020-06-29 15:54:27.449793
부족분 점수: 24.545765806893407
추가분 점수: 0
기타 점수: 30.0
[Episode 1998] - Mean score over last 1 times:54.54576580689341
epoch 1998 start, epsilon: 0.001 time: 2020-06-29 15:54:30.888883
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부족분 점수: 24.545765806893407

추가분 점수: 0 기타 점수: 30.0

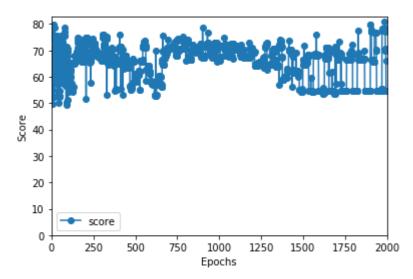
[Episode 1999] - Mean score over last 1 times:54.54576580689341

epoch 1999 start, epsilon: 0.001 time: 2020-06-29 15:54:34.339142

부족분 점수: 24.545765806893407

추가분 점수: 0 기타 점수: 30.0

[Episode 2000] - Mean score over last 1 times:54.54576580689341



In []: