n\_episodes = 250 # количество эпизодов lapan = 20

alpha = 0.5 #learning rate sayon - 0.5 больш - 0.9 Lapan = 0.2

gamma = 0.9 #discount factor sayon - 0.9 больш - 0.5 lapan = 0.9

epsilon = 0.5 #e-greedy sayon - 0.3 больш - 0.7 lapan = = 1.0 (100% random actions)

get\_stats()= {'battles\_won': 1, 'battles\_game': 10, 'battles\_draw': 0, 'win\_rate': 0.1, 'timeouts': 0, 'restarts': 0}

actions\_history= [3, 4, 3, 2, 3, 2, 3, 2, 3, 2, 3, 2, 3, 2, 3, 2, 3, 2, 2, 2, 3, 5, 2, 5, 3, 5, 2, 1, 3, 1, 5, 1, 2, 1, 3, 1, 2, 1, 3, 1, 5, 1, 2, 1, 3, 1, 2, 1, 3, 1, 2, 1, 3, 1, 5, 1, 2, 1, 3, 1, 2, 1, 3, 1, 2, 1, 3, 1, 5, 1, 2, 1, 3, 1, 3, 1, 2, 1, 3, 1, 5, 1, 2, 1, 3, 1, 2, 1, 3, 1, 5, 1, 2, 1, 3, 1, 2, 1, 3, 1, 2, 1, 3, 1, 5, 1, 2, 1, 3, 1, 2, 1, 3, 1, 7, 1, 7, 7, 7, 2, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 5, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6, 0, 6]

Average reward = 5.44516129032258