FBI - Final Player Evaluation

Player: FBI
SCSA Name: InsertColors
Game: 8 Pegs 10 Colors
Rounds: 100 out of 100
Results: {'win': 100, 'loss': 0, 'failure': 0}
Score: 10274.754936995118
avg no. of guess per round : 15.56
time taken to complete the tournament 0.07896566390991211

Player: FBI
SCSA Name: TwoColor
Game: 8 Pegs 10 Colors
Rounds: 100 out of 100
Results: {'win': 100, 'loss': 0, 'failure': 0}
Score: 11934.837130128784
avg no. of guess per round : 11.67
time taken to complete the tournament 0.06069183349609375

Player: FBI
SCSA Name: PreferFewer
Game: 8 Pegs 10 Colors
Rounds: 100 out of 100
Results: {'win': 100, 'loss': 0, 'failure': 0}
Score: 14939.091825896954
avg no. of guess per round : 9.91
time taken to complete the tournament 0.04528307914733887

Player: FBI
SCSA Name: UsuallyFewer
Game: 8 Pegs 10 Colors
Rounds: 100 out of 100
Results: {'win': 100, 'loss': 0, 'failure': 0}
Score: 11583.712629998612
avg no. of guess per round : 12.54
time taken to complete the tournament 0.06161785125732422

Player: FBI
SCSA Name: OnlyOnce
Game: 8 Pegs 10 Colors
Rounds: 100 out of 100
Results: {'win': 100, 'loss': 0, 'failure': 0}
Score: 10040.155246917302
avg no. of guess per round : 16.27
time taken to complete the tournament 0.08061408996582031

Player: FBI
SCSA Name: FirstLast
Game: 8 Pegs 10 Colors
Rounds: 100 out of 100
Results: {'win': 100, 'loss': 0, 'failure': 0}
Score: 10357.043414336078
avg no. of guess per round : 15.23
time taken to complete the tournament 0.075347900390625

FBI - Baseline_3 evaluation (named fbi_4 but it is baseline 3)

Player: fbi_4
SCSA Name: InsertColors
Game: 8 Pegs 10 Colors
Rounds: 100 out of 100
Results: {'win': 3, 'loss': 97, 'failure': 0}
Score: 189.8952797103475
avg no. of guess per round : 98.48
time taken to complete the tournament 2.088622808456421

Player: fbi_4
SCSA Name: TwoColor
Game: 8 Pegs 10 Colors
Rounds: 100 out of 100
Results: {'win': 100, 'loss': 0, 'failure': 0}
Score: 7080.9658521296415
avg no. of guess per round : 40.67
time taken to complete the tournament 1.6463563442230225

SCSA Name: PreferFewer
Game: 8 Pegs 10 Colors
Rounds: 100 out of 100
Results: {'win': 81, 'loss': 19, 'failure': 0}
Score: 11623.643272511561
avg no. of guess per round : 34.09
time taken to complete the tournament 1.0023398399353027

Player: fbi_4
SCSA Name: UsuallyFewer
Game: 8 Pegs 10 Colors
Rounds: 100 out of 100
Results: {'win': 59, 'loss': 41, 'failure': 0}
Score: 4137.421648973746
avg no. of guess per round : 65.2
time taken to complete the tournament 1.6373999118804932

Player: fbi_4
SCSA Name: OnlyOnce
Game: 8 Pegs 10 Colors
Rounds: 100 out of 100
Results: {'win': 0, 'loss': 100, 'failure': 0}
Score: 0
avg no. of guess per round : 100.0
time taken to complete the tournament 2.6041901111602783

Player: fbi_4
SCSA Name: FirstLast
Game: 8 Pegs 10 Colors
Rounds: 100 out of 100
Results: {'win': 6, 'loss': 94, 'failure': 0}
Score: 332.8755145618182
avg no. of guess per round : 97.75
time taken to complete the tournament 2.1721651554107666

Scalibility evaluation against InsertColors

Player: FBI
SCSA Name: InsertColors
Game: 3 Pegs 5 Colors
Rounds: 100 out of 100
Results: {'win': 100, 'loss': 0, 'failure': 0}
Score: 3479.356506089026
avg no. of guess per round : 4.8
time taken to complete the tournament 0.009579181671142578

Player: FBI
SCSA Name: InsertColors
Game: 4 Pegs 6 Colors
Rounds: 100 out of 100
Results: {'win': 100, 'loss': 0, 'failure': 0}
Score: 4772.943331950141
avg no. of guess per round : 6.45
time taken to complete the tournament 0.024013042449951172

Player: FBI
SCSA Name: InsertColors
Game: 5 Pegs 7 Colors
Rounds: 100 out of 100
Results: {'win': 100, 'loss': 0, 'failure': 0}
Score: 6195.083774122866
avg no. of guess per round : 8.14
time taken to complete the tournament 0.06948113441467285

Player: FBI
SCSA Name: InsertColors
Game: 6 Pegs 8 Colors
Rounds: 100 out of 100
Results: {'win': 100, 'loss': 0, 'failure': 0}
Score: 7553.810063706389
avg no. of guess per round : 10.36
time taken to complete the tournament 0.036389827728271484

Player: FBI
SCSA Name: InsertColors
Game: 7 Pegs 9 Colors
Rounds: 100 out of 100
Results: {'win': 100, 'loss': 0, 'failure': 0}
Score: 8772.817345506293
avg no. of guess per round : 13.23
time taken to complete the tournament 0.05140995979309082

Player: FBI
SCSA Name: InsertColors
Game: 8 Pegs 10 Colors
Rounds: 100 out of 100
Results: {'win': 100, 'loss': 0, 'failure': 0}
Score: 10221.650077368213
avg no. of guess per round : 15.66
time taken to complete the tournament 0.07395410537719727

Player: FBI
SCSA Name: InsertColors
Game: 9 Pegs 11 Colors
Rounds: 100 out of 100
Results: {'win': 100, 'loss': 0, 'failure': 0}
Score: 11728.888765144586
avg no. of guess per round : 18.17
time taken to complete the tournament 0.09447121620178223

Player: FBI
SCSA Name: InsertColors
Game: 10 Pegs 12 Colors
Rounds: 100 out of 100
Results: {'win': 100, 'loss': 0, 'failure': 0}
Score: 13201.900746395842
avg no. of guess per round : 21.01
time taken to complete the tournament 0.12236499786376953

Player: FBI
SCSA Name: InsertColors
Game: 11 Pegs 13 Colors
Rounds: 100 out of 100
Results: {'win': 100, 'loss': 0, 'failure': 0}
Score: 14482.930540745567
avg no. of guess per round : 24.82
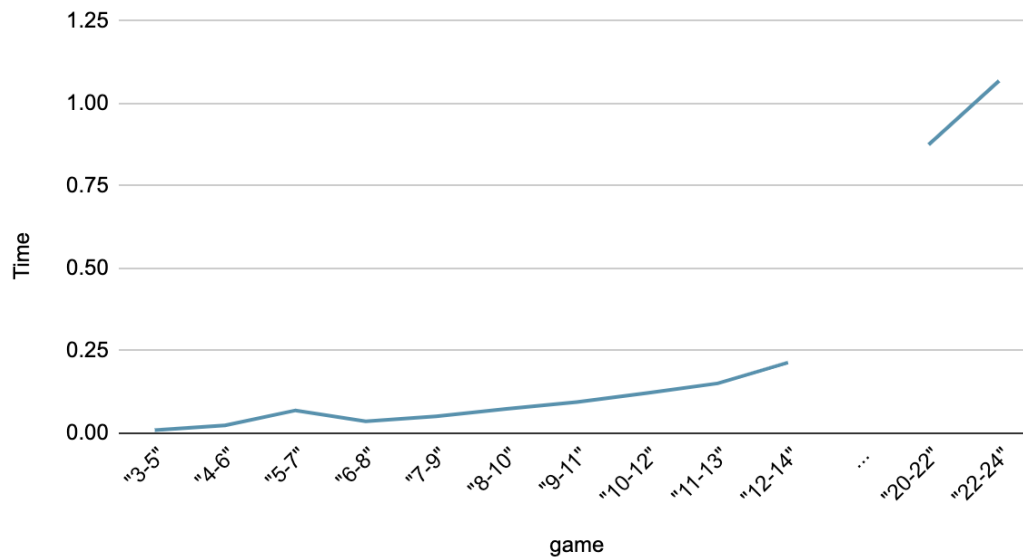time taken to complete the tournament 0.15120410919189453

Player: FBI
SCSA Name: InsertColors
Game: 12 Pegs 14 Colors
Rounds: 100 out of 100
Results: {'win': 100, 'loss': 0, 'failure': 0}
Score: 15911.207534070405
avg no. of guess per round : 28.45
time taken to complete the tournament 0.21452999114990234

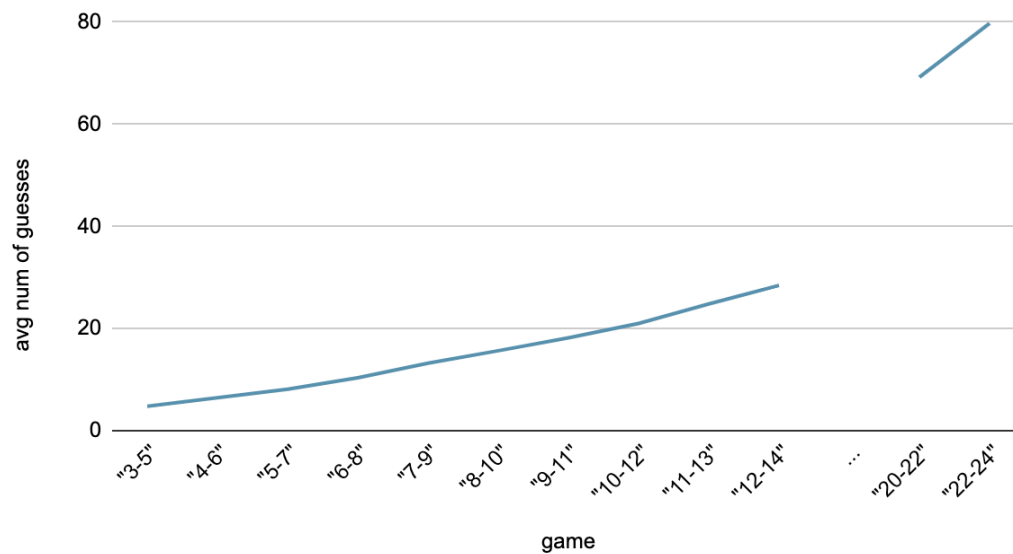## Jumping to significantly higher complexity

Player: FBI
SCSA Name: InsertColors
Game: 20 Pegs 22 Colors
Rounds: 100 out of 100
Results: {'win': 99, 'loss': 1, 'failure': 0}
Score: 26418.36405627324
avg no. of guess per round : 69.23
time taken to complete the tournament 0.8755929470062256

Player: FBI
SCSA Name: InsertColors
Game: 22 Pegs 24 Colors
Rounds: 100 out of 100
Results: {'win': 94, 'loss': 6, 'failure': 0}
Score: 28197.256177919993
avg no. of guess per round : 79.78
time taken to complete the tournament 1.069108009338379

Time vs. game

avg num of guesses vs. game

From our experiments, we were able to conclude that our player great at solving codes for any agents. It significantly outperformed the baseline_3 player.

Further, our player is also highly scalable and performs quick operations. Because of this, our time and average number of guesses is within bounds.