2/13/18

n = 15

graph fixed

popsize = 100

generations = 25

TRIAL 1:

OUTPUT:

Gen. 0 (0.00%): Max/Min/Avg Fitness(Raw) [4.43(8.00)/3.06(0.00)/3.69(3.69)]

Gen. 10 (40.00%): Max/Min/Avg Fitness(Raw) [6.02(10.00)/4.41(2.00)/5.02(5.02)]

Gen. 20 (80.00%): Max/Min/Avg Fitness(Raw) [6.19(10.00)/4.49(2.00)/5.16(5.16)]

Gen. 25 (100.00%): Max/Min/Avg Fitness(Raw) [6.73(10.00)/4.43(1.00)/5.61(5.61)]

Total time elapsed: 43.163 seconds.

[['1', '4', '4', '0', '3'], ['0', '0', '3', '2', '0'], ['0', '0', '3', '2', '0'], ['0', '0', '3', '2', '0'], ['0', '0', '3', '2', '0'], ['0', '0', '3', '2', '0'], ['0', '0', '3', '2', '0'], ['0', '0', '3', '2', '0'], ['0', '0', '3', '2', '0'], ['0', '0', '3', '2', '0'], ['0', '0', '3', '2', '0'], ['0', '0', '3', '2', '0'], ['0', '0', '3', '2', '0'], ['0', '0', '3', '2', '0'], ['0', '0', '3', '2', '0'], ['0', '0', '3', '2', '0'], ['0', '0', '3', '2', '0'], ['0', '0', '3', '2', '0'], ['0', '0', '3', '2', '0'], ['0', '0', '3', '2', '0'], ['0', '0', '3', '2', '0'], ['0', '0', '3', '2', '0'], ['0', '0', '3', '2', '0'], ['0', '2', '3', '0', '0'], ['0', '2', '3', '0', '0'], ['0', '2', '3', '0', '0']]

TRIAL 2:

Gen. 0 (0.00%): Max/Min/Avg Fitness(Raw) [5.00(9.00)/3.45(0.00)/4.17(4.17)]

Gen. 10 (40.00%): Max/Min/Avg Fitness(Raw) [6.50(10.00)/4.61(2.00)/5.42(5.42)]

Gen. 20 (80.00%): Max/Min/Avg Fitness(Raw) [6.13(10.00)/4.46(2.00)/5.11(5.11)]

Gen. 25 (100.00%): Max/Min/Avg Fitness(Raw) [6.38(10.00)/4.57(2.00)/5.32(5.32)]

Total time elapsed: 117.096 seconds.

[['0', '3', '4', '1', '1'], ['0', '2', '0', '0', '0'], ['0', '2', '0', '0', '0'], ['0', '2', '0', '0', '0'], ['0', '2', '0', '0', '0'], ['0', '2', '0', '0', '0'], ['0', '2', '0', '0', '0'], ['0', '2', '0', '0', '0'], ['0', '2', '0', '0', '0'], ['0', '2', '0', '0', '0'], ['0', '2', '0', '0', '0'], ['0', '2', '0', '0', '0'], ['0', '2', '0', '0', '0'], ['0', '2', '0', '0', '0'], ['0', '2', '0', '0', '0'], ['0', '2', '0', '0', '0'], ['0', '2', '0', '0', '0'], ['0', '2', '0', '0', '0'], ['0', '2', '0', '0', '0'], ['0', '2', '0', '0', '0'], ['0', '2', '0', '0', '0'], ['0', '2', '0', '0', '0'], ['0', '2', '0', '0', '0'], ['0', '2', '0', '0', '0'], ['0', '2', '0', '0', '0'], ['0', '2', '0', '0', '0']]

TRIAL 3:

Gen. 0 (0.00%): Max/Min/Avg Fitness(Raw) [4.25(8.00)/2.98(0.00)/3.54(3.54)]

Gen. 10 (40.00%): Max/Min/Avg Fitness(Raw) [4.97(8.00)/3.25(0.00)/4.14(4.14)]

Gen. 20 (80.00%): Max/Min/Avg Fitness(Raw) [4.86(9.00)/3.55(1.00)/4.05(4.05)]

Gen. 25 (100.00%): Max/Min/Avg Fitness(Raw) [4.91(9.00)/3.58(1.00)/4.09(4.09)]

Total time elapsed: 25.662 seconds.

[['3', '3', '4', '3', '0'], ['3', '2', '2', '1', '1'], ['3', '2', '2', '1', '2'], ['3', '2', '2', '1', '2'], ['3', '2', '2', '1', '2'], ['3', '2', '2', '1', '2'], ['3', '2', '2', '1', '2'], ['3', '2', '2', '1', '2'], ['3', '2', '2', '1', '2'], ['3', '2', '2', '1', '2'], ['3', '2', '2', '1', '2'], ['3', '2', '2', '1', '2'], ['3', '2', '2', '1', '2'], ['3', '2', '2', '1', '2'], ['3', '2', '2', '1', '2'], ['3', '2', '2', '1', '2'], ['3', '2', '2', '1', '2'], ['3', '2', '2', '1', '2'], ['3', '2', '2', '1', '2'], ['3', '2', '2', '1', '2'], ['3', '2', '2', '1', '2'], ['3', '2', '2', '1', '2'], ['3', '2', '2', '1', '2'], ['3', '2', '2', '1', '2'], ['3', '2', '2', '1', '2'], ['3', '2', '2', '1', '2']]

Gen. 0 (0.00%): Max/Min/Avg Fitness(Raw) [5.75(10.00)/3.91(0.00)/4.79(4.79)]

Gen. 10 (66.67%): Max/Min/Avg Fitness(Raw) [8.42(10.00)/5.60(4.00)/7.02(7.02)]

Gen. 15 (100.00%): Max/Min/Avg Fitness(Raw) [8.41(10.00)/4.66(2.00)/7.01(7.01)]

Total time elapsed: 188.899 seconds.

[['2', '0', '1', '2', '2'], ['1', '0', '2', '0', '4'], ['1', '0', '2', '0', '4'], ['1', '0', '2', '0', '4'], ['1', '0', '2', '0', '4'], ['1', '0', '2', '0', '4'], ['1', '0', '2', '0', '4'], ['1', '0', '2', '0', '4'], ['1', '0', '2', '0', '4'], ['1', '0', '2', '0', '4'], ['1', '0', '2', '0', '4'], ['1', '0', '2', '0', '4'], ['0', '1', '2', '0', '4'], ['1', '0', '2', '0', '4'], ['1', '0', '2', '0', '4'], ['1', '0', '2', '0', '4']]

with uniform crossover

Gen. 0 (0.00%): Max/Min/Avg Fitness(Raw) [5.88(9.00)/3.73(0.00)/4.90(4.90)]

Gen. 10 (66.67%): Max/Min/Avg Fitness(Raw) [7.51(10.00)/4.83(2.00)/6.26(6.26)]

Gen. 15 (100.00%): Max/Min/Avg Fitness(Raw) [6.90(10.00)/4.74(2.00)/5.75(5.75)]

Total time elapsed: 1140.547 seconds.

[['4', '2', '4', '4', '2'], ['0', '0', '4', '2', '2'], ['0', '1', '2', '0', '4'], ['0', '1', '3', '0', '4'], ['0', '1', '3', '0', '4'], ['0', '1', '3', '0', '4'], ['0', '1', '3', '0', '4'], ['0', '1', '3', '0', '4'], ['0', '1', '3', '0', '4'], ['0', '1', '3', '0', '4'], ['0', '0', '3', '1', '4'], ['0', '0', '3', '1', '4'], ['0', '0', '3', '1', '4'], ['0', '0', '3', '1', '4'], ['0', '0', '3', '1', '4'], ['0', '0', '3', '1', '4']]