

Random Hamiltonian Path Test:

Size 4 Execution time: 0.0001 seconds avg.

Size 5 Execution time: 0.0002 seconds avg.

Size 6 Execution time: 0.0008 seconds avg.

Size 7 Execution time: 0.0042 seconds avg.

Size 8 Execution time: 0.0301 seconds avg.

Size 9 Execution time: 0.2426 seconds avg.

Size 10 Execution time: 1.6372 seconds avg.

A Hamiltonian Cycles Found:

Size 4: [(0, 2, 1, 3), (0, 2, 1, 3), (0, 1, 2, 3), (0, 2, 1, 3), (0, 1, 3, 2), (0, 1, 2, 3), (0, 2, 1, 3), (0, 1, 3, 2), (0, 1, 3, 2)]

Size 5: [(0, 1, 2, 4, 3), (0, 1, 2, 4, 3), (0, 1, 3, 4, 2), (0, 1, 4, 2, 3), (0, 1, 3, 4, 2), (0, 3, 1, 2, 4), (0, 1, 2, 3, 4), (0, 1, 3, 4, 2), (0, 1, 2, 3, 4), (0, 1, 2, 3, 4), (0, 2, 1, 4, 3), (0, 3, 2, 1, 4)]

Size 6: [(0, 3, 2, 4, 1, 5), (0, 2, 3, 5, 1, 4), (0, 2, 4, 1, 3, 5), (0, 2, 1, 3, 4, 5), (0, 2, 1, 3, 4, 5), (0, 2, 3, 5, 1, 4), (0, 2, 1, 5, 4, 3), (0, 2, 4, 1, 3, 5), (0, 1, 4, 3, 2, 5), (0, 2, 5, 3, 1, 4), (0, 3, 1, 4, 2, 5), (0, 1, 4, 3, 5, 2), (0, 1, 5, 4, 2, 3), (0, 2, 1, 4, 3, 5), (0, 2, 1, 5, 3, 4)]

Size 7: [(0, 2, 1, 4, 3, 6, 5), (0, 2, 4, 1, 6, 3, 5), (0, 1, 2, 4, 3, 6, 5), (0, 1, 5, 3, 2, 4, 6), (0, 1, 2, 5, 4, 3, 6), (0, 2, 1, 3, 6, 5, 4), (0, 3, 5, 1, 4, 2, 6), (0, 1, 2, 3, 4, 6, 5), (0, 4, 6, 1, 3, 2, 5), (0, 2, 3, 4, 1, 5, 6), (0, 1, 3, 4, 2, 5, 6), (0, 1, 6, 4, 5, 3, 2), (0, 1, 3, 2, 6, 5, 4), (0, 1, 3, 2, 6, 5, 4), (0, 1, 6, 3, 2, 4, 5), (0, 2, 6, 1, 3, 4, 5), (0, 1, 2, 3, 6, 4, 5), (0, 3, 2, 1, 5, 4, 6), (0, 1, 3, 2, 4, 5, 6), (0, 1, 2, 4, 5, 3, 6), (0, 3, 1, 2, 4, 6, 5), (0, 2, 5, 4, 1, 3, 6), (0, 1, 6, 2, 3, 4, 5), (0, 1, 2, 6, 3, 4, 5), (0, 3, 1, 4, 2, 5, 6), (0, 3, 1, 2, 4, 5, 6), (0, 1, 4, 3, 5, 2, 6)]

Size 8: [(0, 1, 2, 3, 6, 4, 7, 5), (0, 1, 2, 6, 3, 7, 4, 5), (0, 2, 3, 1, 5, 4, 6, 7), (0, 2, 1, 4, 3, 6, 7, 5), (0, 2, 3, 7, 1, 6, 5, 4), (0, 1, 3, 2, 4, 7, 6, 5), (0, 1, 2, 4, 5, 3, 7, 6), (0, 2, 1, 5, 4, 6, 3, 7), (0, 5, 1, 2, 3, 4, 6, 7), (0, 1, 5, 6, 2, 7, 3, 4), (0, 1, 5, 2, 3, 4, 7, 6), (0, 2, 4, 1, 3, 6, 5, 7), (0, 3, 4, 7, 6, 2, 1, 5), (0, 1, 5, 6, 4, 3, 7, 2), (0, 2, 4, 1, 5, 6, 7, 3), (0, 1, 2, 5, 7, 4, 3, 6), (0, 1, 2, 4, 5, 3, 6, 7), (0, 1, 4, 3, 2, 6, 5, 7), (0, 4, 2, 5, 3, 6, 1, 7), (0, 1, 3, 4, 6, 2, 7, 5), (0, 3, 4, 1, 6, 7, 2, 5), (0, 1, 6, 2, 4, 7, 5, 3), (0, 2, 6, 7, 5, 3, 1, 4), (0, 1, 3, 6, 7, 2, 4, 5), (0, 2, 1, 4, 5, 3, 7, 6), (0, 3, 6, 1, 7, 4, 2, 5), (0, 3, 7, 5, 2, 4, 1, 6)]

Size 9: [(0, 3, 2, 1, 4, 6, 8, 5, 7), (0, 4, 2, 6, 7, 3, 8, 1, 5), (0, 3, 8, 7, 2, 1, 4, 6, 5), (0, 1, 7, 8, 2, 4, 6, 5, 3), (0, 5, 1, 2, 7, 4, 6, 3, 8), (0, 2, 4, 8, 1, 5, 7, 6, 3), (0, 3, 2, 7, 1, 6, 8, 4, 5), (0, 4, 1, 3, 6, 8, 7, 2, 5), (0, 2, 8, 1, 4, 3, 6, 7, 5), (0, 4, 2, 7, 8, 6, 3, 1, 5), (0, 2, 3, 4, 7, 1, 5, 8, 6), (0, 2, 4, 1, 3, 7, 6, 5, 8), (0, 5, 1, 6, 3, 4, 7, 2, 8), (0, 1, 3, 2, 4, 5, 7, 6, 8), (0, 5, 6, 2, 1, 4, 8, 3, 7), (0, 1, 2, 5, 8, 6, 3, 7, 4), (0, 1, 4, 7, 2, 5, 3, 6, 8), (0, 4, 2, 1, 8, 5, 3, 6, 7), (0, 1, 6, 5, 3, 2, 7, 4, 8), (0, 1, 2, 3, 5, 6, 4, 8, 7), (0, 3, 2, 4, 6, 8, 1, 5, 7), (0, 1, 3, 6, 8, 4, 2, 7, 5), (0, 4, 1, 7, 3, 5, 2, 6, 8), (0, 1, 8, 2, 5, 4, 6, 7, 3), (0, 1, 2, 3, 4, 7, 5, 6, 8), (0, 1, 2, 7, 4, 5, 3, 6, 8), (0, 1, 8, 4, 6, 2, 3, 7, 5), (0, 4, 2, 7, 3, 1, 8, 5, 6), (0, 1, 3, 2, 5, 7, 6, 4, 8), (0, 3, 2, 4, 1, 8, 5, 6, 7), (0, 6, 2, 1, 3, 5, 8, 4, 7), (0, 1, 3, 4, 2, 8, 6, 5, 7)]

Size 10: [(0, 4, 1, 2, 3, 5, 8, 6, 7, 9), (0, 3, 2, 1, 8, 5, 4, 7, 9, 6), (0, 1, 3, 5, 7, 8, 4, 9, 2, 6), (0, 1, 2, 3, 9, 4, 5, 8, 7, 6), (0, 7, 9, 5, 1, 6, 2, 4, 3, 8), (0, 6, 2, 1, 4, 9, 3, 7, 5, 8), (0, 1, 2, 7, 4, 5, 3, 6, 9, 8), (0, 3, 1, 5, 9, 4, 7, 2, 6, 8), (0, 1, 2, 4, 5, 9, 6, 7, 3, 8), (0, 1, 2, 7, 5, 4, 9, 6, 8, 3), (0, 2, 1, 3, 5, 4, 9, 8, 7, 6), (0, 1, 4, 5, 9, 8, 3, 2, 7, 6), (0, 2, 1, 4, 3, 5, 7, 6, 8, 9), (0, 1, 3, 9, 4, 2, 6, 5, 7, 8), (0, 1, 4, 5, 9, 2, 3, 8, 6, 7), (0, 2, 1, 6, 4, 8, 9, 5, 3, 7), (0, 1, 2, 3, 4, 5, 8, 9, 6, 7), (0, 1, 3, 2, 6, 8, 4, 5, 7, 9), (0, 2, 4, 3, 9, 7, 1, 8, 5, 6), (0, 4, 7, 3, 5, 1, 6, 8, 2, 9), (0, 5, 3, 4, 1, 6, 8, 7, 2, 9), (0, 1, 2, 7, 6, 8, 9, 4, 3, 5), (0, 2, 4, 6, 7, 8, 3, 1, 5, 9), (0, 4, 5, 1, 3, 7, 2, 9, 8, 6), (0, 2, 6, 4, 3, 9, 7, 8, 1, 5), (0, 1, 2, 3, 4, 6, 9, 7, 8, 5), (0, 1, 2, 3, 5, 7, 6, 8, 9, 4), (0, 2, 3, 6, 5, 1, 4, 9, 7, 8), (0, 3, 6, 5, 2, 4, 8, 1, 7, 9), (0, 1, 4, 2, 7, 3, 6, 5, 9, 8), (0, 3, 8, 4, 1, 5, 6, 9, 2, 7), (0, 1, 2, 3, 6, 7, 8, 4, 5, 9), (0, 3, 1, 2, 4,

5, 9, 8, 7, 6), (0, 1, 2, 4, 3, 7, 9, 5, 8, 6), (0, 1, 3, 2, 9, 7, 6, 5, 4, 8), (0, 1, 2, 4, 3, 9, 7, 6, 5, 8), (0, 3, 2, 5, 9, 7, 1, 8, 4, 6), (0, 3, 2, 6, 1, 4, 5, 8, 7, 9)]