My strategy hinged on recognizing that choosing a permutation of the five central spots would determine every other spot since (a) the least available number must be paired with the greatest sum of two adjacent central spots, and (b) getting one outer node would generate all the others in a cascade. Additionally, all internal permutations have rotational symmetry. Finally, that we’re looking for 16-digit solutions means 10 must be an outer spot. Thus, the problem space of options to try is reduced from 10! = 3,628,800 to (9 choose 5) \* 4! = 3024.

Java. Runs instantly.

[code]

[/code]