Wing Hong Tony Wong*, 15200 Kutztown Road, Kutztown, PA 19530, and Joshua Harrington. Super totient numbers and the super totient index of graphs.

For any integer \( n \), let \( R(n) \) be the set of positive integers less than \( n \) and relatively prime to \( n \). If \( R(n) \) can be partitioned into two subsets with the same sum, then we say \( n \) is super totient. We completely characterize all super totient numbers. Furthermore, we define and study two new concepts in graph labeling: the restricted super totient labeling and the super totient index of graphs. (Received September 12, 2019)