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**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)