An integer \( n \) is abundant if the sum of its divisors, \( \sigma(n) = \sum_{d|n} d \), is greater than \( 2n \); \( n \) is perfect if \( \sigma(n) = 2n \); and otherwise \( n \) is deficient. Both the set \( H \) of abundant numbers and the set \( H^* \) of non-deficient numbers are closed under multiplication, making them submonoids of \( (\mathbb{N}, \times) \). As a result, we can consider how elements of \( H^* \) (or \( H \)) factor into irreducible elements of \( H^* \) (resp. \( H \)), a concept related to the previously studied idea of primitive non-deficient numbers. As it turns out, non-deficient numbers (or abundant numbers) do not factor uniquely into products of irreducible non-deficient numbers (resp. irreducible abundant numbers). We describe the factorization theory of these two monoids, demonstrating them to be particular cases of a wider class of extremal submonoids of \( (\mathbb{N}, \times) \). Lastly, we consider questions about other arithmetic functions that will produce submonoids of \( (\mathbb{N}, \times) \) in this class. (Received September 17, 2019)