This paper gives a great introduction to the problem of prime factorization of knots. A knot is called prime if it can not be written as a connected sum of two knots, such that both of these are non-trivial. The goal of the paper is to demonstrate the existence of prime knots and the uniqueness of the prime factorization (up to the order of factors). By providing the reader with the methods and tools one needs for proving these results, the author was able to present rigorous yet clear proofs of the main statements.