In \( \mathbb{R}^n \), a frame is defined to be a spanning set. A collection \( F = \{f_i\}_{i=1}^k \subseteq \mathbb{R}^n \) is a \( \lambda \)-tight frame if there exists \( \lambda > 0 \) such that for every \( f \in \mathbb{R}^n \), \( \lambda \|f\|^2 = \sum_{i=1}^k |\langle f, f_i \rangle|^2 \). We examine the structure of frames through factor posets and scalability. A factor poset for a frame \( F = \{f_i\}_{i=1}^k \) is the set \( P = \{J \subseteq \{1, \ldots, k\} : \{f_j\}_{j \in J} \text{ is a tight frame}\} \), partially ordered by set inclusion, \( \emptyset \in P \). This definition leads to the question: given a poset \( P \), when is \( P \) a factor poset? We call this problem the inverse factor poset problem (IFPP). The IFPP was solved in \( \mathbb{R}^2 \) in 2013. In our goal of solving the IFPP in \( \mathbb{R}^n \), we discovered combinatorial properties of tight frames and explored constructions of frames from posets. Next, we examine the scalability of frames. For a frame \( F = \{f_i\}_{i=1}^k \), a scaling is a vector \( w = (w(1), \ldots, w(k)) \in \mathbb{R}_{\geq 0}^k \) such that \( \{\sqrt{w(i)}f_i\}_{i=1}^k \) is a 1-tight frame in \( \mathbb{R}^n \). We establish results on the structure of the scalability polytope and its connection to the factor poset. This research completed at Central Michigan University’s 2014 REU. (Received September 04, 2014)