The definition of a symmetric monoidal bicategory is long and involved, due to its completely general nature. I will discuss three stricter definitions. The first is that of a quasi-strict symmetric monoidal 2-category due to Chris Schommer-Pries. The second is the logically equivalent, but conceptually different notion of a permutative Gray-monoid. The third notion is that of a permutative 2-category which, while not equivalent to the first two notions, arises naturally in topological applications. (Received August 15, 2014)