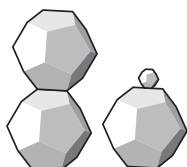


1: dodecahedra meeting vertex-to-vertex must be scaled **1** golden power relative to each other.



2: dodecahedra meeting face-to-face must be scaled **2** golden powers relative to one another.



3: dodecahedra meeting edge-to-edge must be either the same size or scaled **3** golden powers relative to one another.



4: no chains of **4** dodecahedra meeting edge-to-edge are allowed.

Dodecafoam

Interestingly, dodecafoam can “self-assemble”. The simple 1-2-3-4 rules for fitting dodecahedra together ensure that the resulting structure is non-periodic and hierarchically structured. Local interactions cumulate and influence the arrangement of dodecahedra at all scales and all distances.